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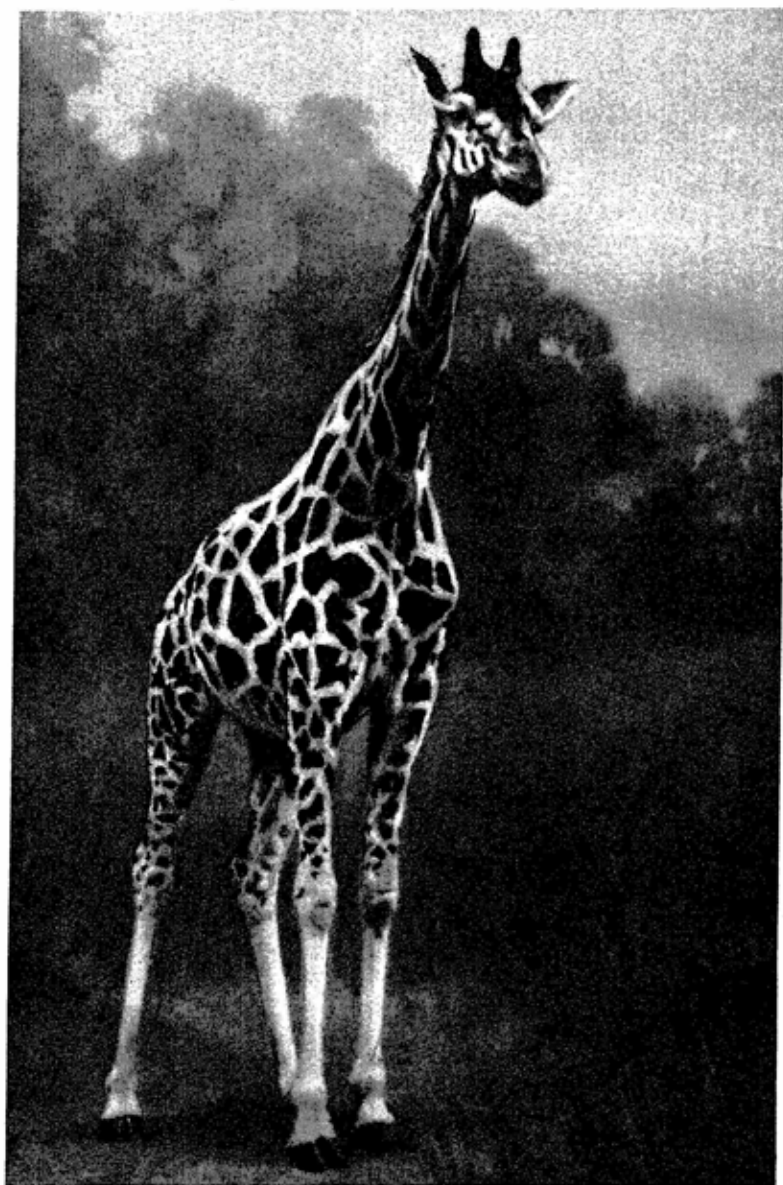
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NORTHERN GIRAFFE.
After Hutchinson, Animals of All Countries.

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FIELD MUSEUM OF NATURAL HISTORY
DEPARTMENT OF ANTHROPOLOGY
CHICAGO, 1928

LEAFLET

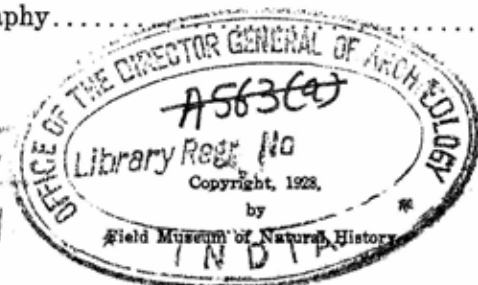
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The Giraffe in History and Art

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The twenty-five drawings illustrating this essay were prepared with great care and skill by the Museum artist, Mr. Carl F. Gronemann, who likewise made the wooden block for the colored giraffe-head on the cover.

GIRAFFES



Giraffes constitute a distinct family of ruminants (*Giraffidae*), natives of Africa (Plates I, VII-IX). Owing to the extraordinary development of the neck and legs, the giraffe is the tallest of all mammals, the height of bulls being from fifteen to sixteen, according to some observers, even from eighteen to nineteen feet, and that of cows from sixteen to seventeen feet. Despite its great elongation, the neck contains only the typical number of seven vertebrae as in nearly all mammals, each vertebra itself being elongated, as every visitor to the Museum may convince himself by viewing the mounted skeleton of a giraffe in Hall 17.

During the present geological epoch the family is strictly confined to Africa, but in former periods of the earth it had a much wider extension, and was distributed over many parts of Europe and Asia, especially Greece, Persia, India, and China, where fossil remains have been discovered from the Miocene onward down to the Pleistocene age. Its maximum development in numbers was reached in the Pliocene of Asia. The living species are distributed all over Africa south of the Sahara.

Two species are generally recognized by zoologists, each with a number of subspecies or geographic races distinguished by variations in the arrangement of the spots, especially on the legs and abdomen. The more widely distributed species is *Giraffa camelopardalis* which ranges throughout most of central and southern Africa. The Reticulated giraffe (*Giraffa reticulata*) is chestnut-colored and covered with a network of white lines (Fig. 1). Its distribution is restricted to northeast Africa in Somaliland, Abyssinia, and northern Kenya. This species will engage

our special attention with reference to Persian and Chinese pictorial representations of it.

The existence of the giraffe in the southern part of Africa (*Giraffa capensis*) was first made known by Hop and

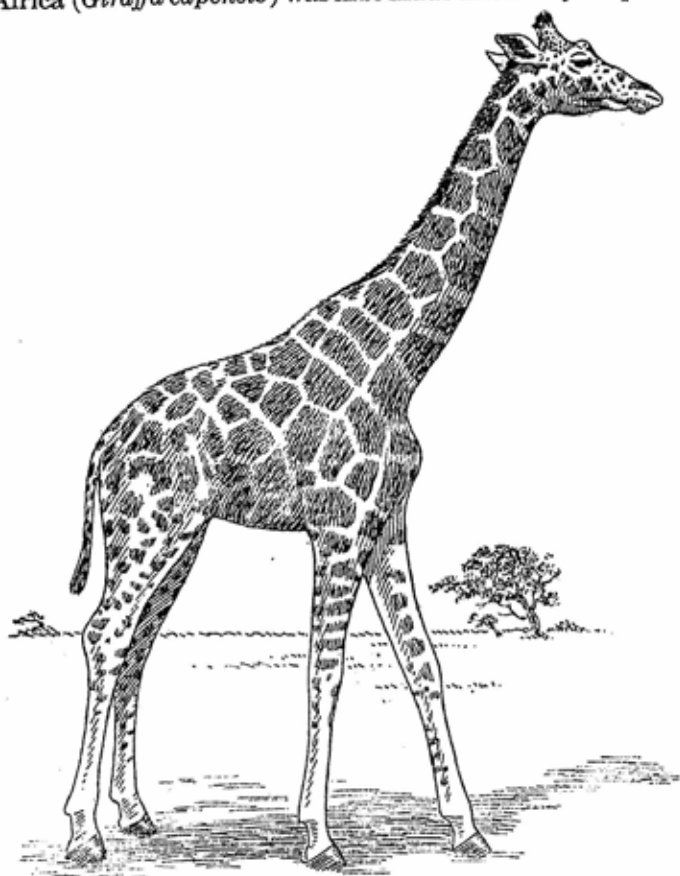


Fig. 1.

Reticulated Giraffe.

From a photograph of Carl Hagenbeck.

Brink's expedition to Great Namaqualand in 1761, who found giraffes soon after crossing the Great River and shot several. Tulbagh, the Dutch governor of the Cape Colony, sent the skin of one of these giraffes to the museum of the

University of Leiden; it was the first taken to Europe from South Africa. A rude sketch of the animal made by Hop and Brink was inserted by Buffon in the thirteenth volume of his "Histoire naturelle." In South Africa the name "giraffe" is practically unknown, and the Dutch term "kameel" is always used.

The body of the giraffe is short, and its shape is peculiar in that the back slopes gradually downward to the rump. The greater height of the fore parts is not owing to the greater length of the fore legs which are not much longer than the hind legs (the real difference between the two amounts to hardly seven inches), but to processes of the vertebrae which form a basis for the muscular support of the neck and head and make a hump on the shoulders.

The neck of all giraffes bears a short mane extending from the occiput to the withers. The hair is short and smooth, reddish white, and marked by numerous dark rusty spots, which are rhomboid, oval, and even circular in shape. The hide is about an inch thick and very tough. It is used by the natives of South Africa for making sandals and by the Boers to supply whips for the bullock-carts, known as sjambok. With the practical disappearance of the rhinoceros and the approaching extermination of the hippopotamus in South Africa, there is a constant commercial demand for giraffe-hides, which are worth from four to five pounds sterling apiece. As a consequence, giraffes are killed in large numbers by Boer and native hunters, and may soon be threatened with extinction.

One of the most beautiful features of the giraffe are the eyes, which are dark brown, large and lustrous, full, soft, and melting, and shaded by long lashes. The ears are long and mobile. The nostrils can be tightly closed at will by a curious arrangement of sphincter muscles. This is supposed to be a provision of nature against blowing sand and thorns of acacias on the leaves of which the animal browses. The lips are furnished with a dense

coating of thick velvety hair, probably as a further protection against thorns.

Giraffes of both sexes carry two "horns" upon the summit of the head. These are permanent bony protuberances or processes growing from the skull, and are covered with yellowish brown hair, which at the tip becomes black. In the skulls of young animals these false horns are easily detachable, but in the adult they are firmly attached to the bony framework of the head, partly to the frontal and partly to the parietal bones. Adults of the Nubian form often have a prominent third horn, rising from the centre of the forehead, between the eyes, to a height of from three to five inches. The "horns," it should be noted, are persistent, not deciduous as the antlers of deer.

The legs are long and slender; the knees are protected by thick pads or callosities. The feet have cloven hoofs; lateral toes are absent. The end of the tail is provided with a long tassel of hair which the animals are in the habit of pulling out. The tail is an article much in favor with eastern Bantu tribes, and has a value of from ten to fifty shillings, while a particularly fine specimen is worth up to five pounds sterling. Giraffe-tails, as will be seen, are figured on an Egyptian monument, and are presented as tribute to Tutenkhamon.

The dentition of the giraffe is bovine: it has altogether thirty-two teeth, six grinders on each side both above and below, and eight teeth in the lower jaw, but none in the upper one. These lower teeth consist of three incisors, and are canine on each side, the canine having a cleft or bilobate crown.

Its food consists almost entirely of the leaves and tender shoots of mimosa-trees and an acacia (*Acacia giraffae*) commonly known as the kameel-dorn. The leaves are plucked off one by one by its long extensile and flexible tongue, which is thrust far out of the mouth, stretching around the leaves and pulling them tight, and then it cuts them with the lower canine teeth. The tongue is about

seventeen inches long and covered with a black pigment. The animals feed chiefly in early morning and late evening, resting during the heat of the day. They are able to go for considerable periods without water, and are found in the driest country long distances away from any possible drinking-places. The Bushmen even assert that they do not drink at all; at any rate, they are singularly independent of water.

The giraffe is a gentle, inoffensive, and defenceless creature, and never uses its horns or teeth in self-defence. Gibbon, the historian, justly speaks of "camelopards, the loftiest and most harmless creatures that wander over the plains of Aethiopia." The heels are the animal's only weapon, and these may deal a very powerful kick. Carl Hagenbeck tells in his memoirs that when he loaded giraffes on a steamer at Alexandria bound for Trieste, one of his brothers received from a giraffe so energetic a blow against his chest that he collapsed and remained unconscious for some time. The lion is said to be the giraffe's sole enemy and to lie in ambush for it in the thickets by rivers and pools. Bryden thinks, however, that lions do not very often succeed in killing giraffes, defenceless though they may be; and when they do, it is generally a solitary animal (individuals of either sex are often seen alone) that has been surprised and pulled down by a party of lions.

The steppe and open bush country are the proper home of the giraffe, but occasionally it seeks the forest. The animal associates in herds from seven to sixteen individuals, though sometimes even larger numbers have been observed in a flock. There is usually a single old male in these herds, the others being young males and females. The oldest males are often found solitary. They are fond of company and frequently live in association with zebra, antelope, wilde-beest, and ostrich. They are difficult of approach, being extremely keen-sighted, and their towering height enables them to command a wide view. While their senses of both sight and smell are highly developed

and very acute, they have no voice and are totally mute.

They sleep standing, but some individuals, and in some localities all the individuals, habitually lie down to sleep.

The peculiar gait of the giraffe has attracted the attention of early writers, first of all of Heliodorus (below, p. 62). E. Topsell, in his "Historie of Four-footed Beastes" (1607), observes, "The pace of this beast differeth from all other in the world, for he doth not move his right and left foote one after another, but both together, and so likewise the other, whereby his whole body is removed at every step or straine."

The giraffe, in its untrammelled native freedom, has only two distinct gaits,—the walk and the gallop, not three, as in the case of the camel.

"As may be gathered from observation of menagerie specimens, giraffes when walking do not move their fore and hind legs of opposite sides like ordinary mammals, but the fore and hind leg of the same side, like a camel. They have but two paces, a walk and a gallop, breaking at once from one into the other, as I was once fortunate enough to observe in a continental Zoo" (G. Renshaw).

W. Maxwell, who has taken excellent photographs of galloping giraffes from a pursuing motor-car, writes, "The giraffe, in its native surroundings, is one of the most cherished objects to the nature photographer and the camera sportsman alike. To photograph these animals by stalking up to them in open bush country, which is their usual habitat, requires skilful tactics." In his book "Stalking Big Game with a Camera" he has reproduced the gallop of the giraffe in three stages. "The speed at which the giraffe can travel when driven to its utmost," he says, "varies between twenty-eight and thirty-two miles an hour for distances of a couple of miles or so, and is about as much as a car can perform at a breakneck speed for this kind of country. The speed of the giraffe varies, naturally, accord-

ing to the age and condition of the animal." The young calves are said to be wonderfully fleet and far more nimble than the adult animals. The giraffe, accordingly, is not easily overtaken by a fleet horse, and is game that taxes the skill of experienced sportsmen. Francis Galton (*Narrative of an Explorer in Tropical South Africa in 1851*) informs us, "Giraffes are wonderful climbers: kudus are the best; but I think that giraffes come next to them, even before the zebras."

The following graphic account of giraffe stalking, which simultaneously presents a good picture of the animal's life-habits, is given by Sir Samuel W. Baker (*The Nile Tributaries of Abyssinia, 1886*):—

"For many days past we have seen large herds of giraffes and many antelopes on the opposite side of the river, about two miles distant, on the borders of the Atbara, into which valley the giraffes apparently dared not descend, but remained on the table-land, although the antelopes appeared to prefer the harder soil of the valley slopes. This day a herd of twenty-eight giraffes tantalized me by descending a short distance below the level flats, and I was tempted at all hazards across the river. Accordingly preparations were immediately made for a start... The Arabs were full of mettle, as their minds were fixed upon giraffe venison.

"I had observed by the telescope that the giraffes were standing as usual upon an elevated position, from whence they could keep a good lookout. I knew it would be useless to ascend the slope direct, as their long necks give these animals an advantage similar to that of the man at the mast-head; therefore, although we had the wind in our favor, we should have been observed. I therefore determined to make a great circuit of about five miles, and thus to approach them from above, with the advantage of the broken ground for stalking. It was the perfection of uneven country: by clambering broken cliffs, wading shoulder-deep through muddy gullies, sliding down the steep

ravines, and winding through narrow bottoms of high grass and mimosas for about two hours, we at length arrived at the point of the high table-land upon the verge of which I had first noticed the giraffes with a telescope. Almost immediately I distinguished the tall neck of one of these splendid animals about a half a mile distant upon my left, a little below the table-land; it was feeding on the bushes, and I quickly discovered several others near the leader of the herd. I was not far enough advanced in the circuit that I had intended to bring me exactly above them, therefore I turned sharp to my right, intending to make a short half circle, and to arrive on the leeward side of the herd, as I was now to windward: this I fortunately completed, but I had marked a thick bush as my point of cover, and upon my arrival I found that the herd had fed down wind, and that I was within two hundred yards of the great bull sentinel that, having moved from his former position, was now standing directly before me. I lay down quietly behind the bush with my two followers, and anxiously watched the great leader, momentarily expecting that it would get my wind. It was shortly joined by two others, and I perceived the heads of several giraffes lower down the incline, that were now feeding on their way to the higher ground. The seroot fly was teasing them, and I remarked that several birds were fluttering about their heads, sometimes perching upon their noses and catching the fly that attacked their nostrils, while the giraffe appeared relieved by their attentions: these were a peculiar species of bird that attacks the domestic animals, and not only relieves them of vermin, but eats into the flesh, and establishes dangerous sores. A puff of wind now gently fanned the back of my neck; it was cool and delightful, but no sooner did I feel the refreshing breeze than I knew it would convey our scent direct to the giraffes. A few seconds afterwards, the three grand obelisks threw their heads still higher in the air, and fixing their great black eyes upon the spot from which the danger came, they remained as

motionless as though carved from stone. From their great height they could see over the bush behind which we were lying at some paces distant, and although I do not think they could distinguish us to be men, they could see enough to convince them of hidden enemies.

"The attitude of fixed attention and surprise of the three giraffes was sufficient warning for the rest of the herd, who immediately filed up from the lower ground, and joined their comrades. All now halted, and gazed steadfastly in our direction, forming a superb tableau; their beautiful mottled skins glancing like the summer coat of a thoroughbred horse, the orange-colored statues standing out in high relief from a background of dark-green mimosas.

"This beautiful picture soon changed. I knew that my chance of a close shot was hopeless, as they would presently make a rush, and be off; thus I determined to get the first start. I had previously studied the ground, and I concluded that they would push forward at right angles with my position, as they had thus ascended the hill, and that, on reaching the higher ground, they would turn to the right, in order to reach an immense tract of high grass, as level as a billiard-table, from which no danger could approach them unobserved.

"I accordingly with a gentle movement of my hand directed my people to follow me, and I made a sudden rush forward at full speed. Off went the herd; shambling along at a tremendous pace, whisking their long tails above their hind quarters, and taking exactly the direction I had anticipated, they offered me a shoulder shot at a little within two hundred yards' distance. Unfortunately, I fell into a deep hole concealed by the high grass, and by the time that I resumed the hunt they had increased their distance, but I observed the leader turned sharp to the right, through some low mimosa bush, to make direct for the open tableland. I made a short cut obliquely at my best speed, and only halted when I saw that I should lose ground by altering my position. Stopping short, I was exactly opposite

the herd as they filed by me at right angles in full speed, within about a hundred and eighty yards. I had my old Ceylon No. 10 double rifle, and I took a steady shot at a large dark-colored bull: the satisfactory sound of the ball upon his hide was followed almost immediately by his blundering forward for about twenty yards, and falling heavily in the low bush. I heard the crack of the ball of my left-hand barrel upon another fine beast, but no effect followed. Bacheet quickly gave me the single 2-ounce Manton rifle, and I singled out a fine dark-colored bull, who fell upon his knees to the shot, but recovering, hobbled off disabled, apart from the herd, with a foreleg broken just below the shoulder. Reloading immediately, I ran up to the spot, where I found my first giraffe lying dead, with the ball clean through both shoulders: the second was standing about one hundred paces distant; upon my approach he attempted to move, but immediately fell, and was dispatched by my eager Arabs. I followed the herd for about a mile to no purpose, through deep clammy ground and high grass, and I returned to our game.

"These were my first giraffes, and I admired them as they lay before me with a hunter's pride and satisfaction, but mingled with a feeling of pity for such beautiful and utterly helpless creatures. The giraffe, although from sixteen to twenty feet in height, is perfectly defenceless, and can only trust to the swiftness of its pace, and the extraordinary power of vision, for its means of protection. The eye of this animal is the most beautiful exaggeration of that of the gazelle, while the color of the reddish-orange hide, mottled with darker spots, changes the tints of the skin with the differing rays of light, according to the muscular movement of the body. No one who has merely seen the giraffe in a cold climate can form the least idea of its beauty in its native land."

K. Moebius, author of a work on the esthetics of the animal kingdom (*Aesthetik der Tierwelt*, 1908), maintains that the giraffe is regarded as ugly by the majority of

people on account of its disproportionate members, but concedes that it makes a deep esthetic impression when it lifts its long neck straight above its massive chest, calmly looking downward or gazing into the distance with its large, black, long-lashed eyes; its form and color, in his estimation, are well adapted to the character of its habitat, yet it conveys to most people the impression of an ugly animal; in his opinion, it is an evident example of the fact that suitable organization does not render animals beautiful, but that besides it they must have other qualities to be pleasing. Aside from the fact that there is nothing ugly in nature and that "foul and fair" are relative notions much depending on our moods and point of view, the giraffe cannot be judged from menagerie specimens to which the impressions of most of us are confined. The free denizen of the wide, open arid plains of Africa will naturally forfeit its best qualities in the narrow enclosures of our animal prison camps. The giraffe must be observed in the freedom of its native haunts. Sir Samuel W. Baker writes, "No one who has merely seen the giraffe in a cold climate can form the least idea of its beauty in its native land."

"The spectacle of a troop of wild giraffe," Bryden writes, "is certainly one of the most wonderful things in nature. The uncommon shape, the great height, the long, slouching stride, the slender necks, reaching hither and thither among the spreading leafage of the camel-thorn trees, the rich coloring of the animal—all these things combine to render the first meeting with the giraffe in their native haunts one of the most striking and memorable of experiences." He further characterizes them as strangely beautiful, grotesquely graceful creatures and withal so harmless. Marco Polo, who was a keen observer and possessed of sound judgement in most matters, calls them "beautiful creatures to look at," and I think he is right.

In perusing the historical sketches to follow the reader should bear in mind that all early descriptions and illustrations of the giraffe (with the sole exception of the

Nubian and Bushmen petroglyphs in Figs. 5 and 10) are based on observation of more or less tame animals who were taken while young and reared in captivity. The study of the wild giraffe in its natural surroundings is of comparatively recent date and due to the vast progress of zoological science and animal photography. We must remain conscious of this distinction between the past and the present, for it has been observed that giraffes in the wild state are in many respects superior, much deeper and richer in coloring than those in captivity, are better nourished, stronger and considerably heavier than those bred in confinement; and Bryden is even inclined to think that there is a greater difference between wild and captive examples of giraffes than in any other animals.

It is not without interest to pass in review the role which so curious a creature has played in its relation to mankind, to record the impressions which it has left on past generations, and to study the question as to how the artists of all ages acquitted themselves of the task to render it justice in portraiture. The Bushmen and the ancient Egyptians, the Persians as well as the Chinese, the ancient Romans as well as the Italian painters of the Renaissance and other European artists furnish interesting contributions to this question, and it has seemed to me worth while to place their work here on record. Ever since in 1908 I obtained in China the Chinese painting of a giraffe, my interest in this subject has been aroused, and it was a pleasant, though not always easy task embodying a great deal of intense research to trace the vicissitudes of the giraffe through all lands and ages down to modern times. This essay is an attempt at a biography and iconography of the giraffe and endeavors to assemble all important historical data that have become known in whatever countries it made its appearance.

THE GIRAFFE IN ANCIENT EGYPT

The giraffe is one of the animals which appears to have been known to the Egyptians from times of earliest antiquity. A pictographic sign for the animal appears in hieroglyphic writing (see Fig. 9 on right side), and is particularly employed to denote the verb "to dispose, to arrange." The old word for the giraffe is *sr* (the vowels of Egyptian are unknown) which Brugsch connects with a Hebrew root and explains from the constantly swinging motion of the animal's body when at rest. It seems more likely that this word bears some relation to Ethiopic *zarat* (compare Arabic *zarafa*), or may even be derived from the latter. The later Egyptian term for the giraffe is *mmj*.

While there is apparently no written account of the giraffe preserved, presumably because it did not rank among sacred animals, we receive from the monuments of Egypt and Nubia the earliest sculptured and pictorial representations of giraffes which belong to the best known in the history of art. Moreover, the Egyptians show us also how the interesting figure of the giraffe may be utilized for the purposes of decorative art.

In the earliest prehistoric period of Egyptian civilization, animal life was much more plentiful in the unsubdued jungles of Egypt than in later times and at present. The great quantity of ivory employed by the people and the representations upon their pottery show that the elephant was still living in their midst; likewise the giraffe, the hippopotamus, and the strange okapi, which was deified as the god Set, wandered through the jungles, though all these animals were extinct in the historical period (Breasted, *History of Egypt*, p. 30). The animal represented by Set is identified by Schweinfurth with the African ant-bear (*Orycteropus aethiopicus*).

In this primitive epoch giraffes were used as a decorative motives on various objects. Giraffes are possibly

intended in the handles of ivory combs (Fig. 2); there are other such combs surmounted by figures of antelopes. A giraffe is clearly outlined on the surface of a painted vase (Fig. 3), and possibly also appears as a mark on pottery (Capart, *Primitive Art in Egypt*, p. 140).



Fig. 2.

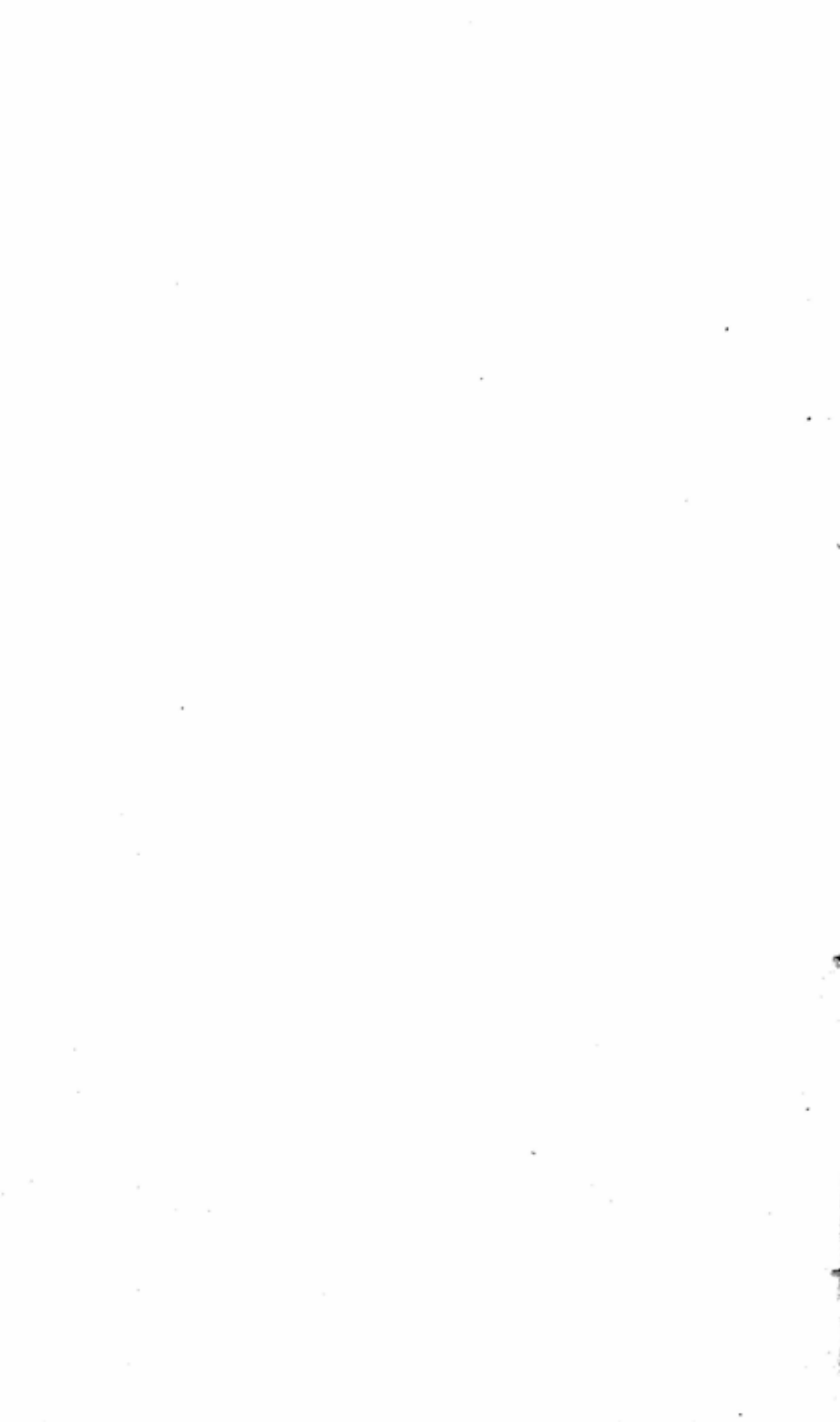
Ivory Combs with Figures of Giraffes. Ancient Egypt.
After Capart.

Fig. 4 represents an archaic slate palette carved in relief, from Hieraconpolis, showing the trunk of a palm-tree in the middle and two giraffes standing one on each side of it, apparently browsing. F. Legge, who published a similar slate only the lower part of which is preserved, showing the body and legs of two giraffes (*Proceedings Society of Biblical Archaeology*, 1900, Plate VI), concludes that the scene depicted is taking place in Upper Egypt or rather in the Sudan, the giraffe not being found above the fifteenth de-



PERSIAN PAINTING OF A GIRAFFE (p. 38).

From a Persian Bestiary of the Thirteenth Century in the Pierpont Morgan Library, New York.



gree of latitude. The four dogs around the plaque are defined by Bénédict as Molossian hounds.

On an expedition to Lower Nubia in 1906 Professor Breasted heard a report current among the natives that there is an unknown temple far out in the desert behind Abu Simbel. Various explorers had examined the neighboring



Fig. 3.

Vase with Painting of Giraffe. Ancient Egypt.
After Capart.

desert in the hope of finding it, but were unsuccessful. Accompanied by a native who assured him that he had located this temple, Professor Breasted struck out into the desert. After a two hours' journey his guide pointed to what looked much like a distant building rising out of the sand in the north. "As we drew near," he writes (*Ameri-*

can Journal of Semitic Languages, 1906, p. 35), the supposed building resolved itself into an isolated crag of rock projecting from the sand, and pierced by two openings



Fig. 4.

Two Giraffes Facing a Palm-tree on a Slate Palette. Ancient Egypt.
After Capart.

which passed completely through it, so that the desert hills on the far horizon were clearly visible through them.

One of these openings very much resembles a door, and, to complete the delusion, it bears on one side a number of prehistoric drawings—two boats, two giraffes, two ostriches, and a number of smaller animals—which might be easily mistaken by a native for hieroglyphic writing. There can be no doubt that this curious natural formation and the archaic drawings upon it are the source of the fabled temple in the desert behind Abu Simbel."

Professor Breasted very kindly placed at my disposal two photographs of these rock-carvings taken by him, from



Fig. 5.

Prehistoric Rock-carvings of Giraffes. Lower Nubia.
From photographs by Professor Breasted.

which the giraffes in Fig. 5 have been drawn. These, in all probability, are the oldest representations of giraffes in the world, and by their clever observation of motion also rank among the best ever made. They are the spontaneous productions of a primitive artist with a keen eye for observation and possessed of great power of expression.

Under the fifth dynasty (2750-2625 B. C.) Sahure continued the development of Egypt as the earliest known naval power in history. He dispatched a fleet on a voyage

to Punt, as the Egyptians called the Somali coast at the south end of the Red Sea, and along the south side of the Gulf of Aden. From that region, which, like the whole east, he termed the God's Land, he obtained the fragrant gums and resins so much desired for incense and ointments.

One of the most important events of the reign of Queen Hatshepsut (eighteenth dynasty, about 1501-1480 B. C.) was a naval expedition to the land of Punt with the object to establish commercial relations with peoples of



Fig. 6.

Giraffe from a Punt Scene at Der el-Bahri.
From a photograph.

what is now the Somali coast. A sculptured record of this peaceful expedition is preserved on the southern half of the wall stretching behind the middle colonnade of her temple at Der el-Bahri situated on the west side of the river at Thebes. In this procession the giraffe is well represented (Fig. 6), unfortunately mutilated; but even without its head it is a magnificent work of art, body and legs being exceedingly well modeled. According to E. Naville (*The Temple of Deir El Bahari*, p. 21. *Egypt Exploration Fund*,

XII, 1894), the giraffe is said to come from the country Khenthennofer, not from the coast. This region is generally distinguished from Punt; the two countries, however, were contiguous, but of somewhat wide and indefinite extent, Punt possessing a coast where vessels could land, while Khenthennofer was located in the mountainous interior. The two countries had a mixed population which included Negroes, and their products were almost identical. Ivory, live panthers, panther-skins, monkeys, gold, ebony,



Fig. 7.

Giraffe from the Presentation of Tribute to Tutenkhamon.
After Nina de Garis Davies.

and antimony were common to both. All these products being typically African, it is evident that Queen Hatshepsut's expedition had been directed to the east coast of Africa. Wealthy Egyptians were fond of keeping live specimens of the fauna of Punt like dogs, monkeys, panthers, leopards, and giraffes.

The illustration in Fig. 7, showing a walking giraffe guided by a Nubian, forms part of the Presentation of Tribute to Tutenkhamon, depicted on the walls of the tomb of Huy, viceroy of Nubia under the reign of Tutenkhamon (compare Nina de Garis Davies and A. H. Gardi-

ner, *The Tomb of Huy, in The Theban Tombs Series*, London, 1926). This tomb is situated high up on the eastern slope of the hill known as Kurnet Murrai which rises from the plain at a little distance north of Medinet Habu. On the west wall of the tomb are depicted scenes of Huy bringing the tribute of Nubia to the Pharaoh. Huy approaches the royal presence from the south, holding in his



Fig. 8.

Giraffes under Palm-trees from the Presentation of Tribute to Tutenkhamon.
After Nina de Garis Davies.

left hand a crooked staff betokening his viceregal authority, and with the right waving the ostrich-feather fan which was his prerogative as "fan-bearer at the right of the king." Tutenkhamon sits in state under his baldachin. Immediately behind the figure of Huy are shown choice samples of Nubian tribute. Gold in rings and "gold tied up" in bags are there, together with dishes of carnelian or red jasper

and of a green mineral. There are tusks of white ivory and jet-black logs of ebony. A model chariot of gold is supported by an attendant Negro, perhaps of ebony, on a gold pedestal. Under the chariot appears to be a golden shrine. Heraldically arranged palm-trees, with monkeys climbing in their branches and giraffes nibbling at their leaves are shown in another scene (Fig. 8), together with kneeling Negroes in an attitude of adoration and with others holding cords attached to the necks of the giraffes. This scene is remarkable for its grace and exquisite realism. There are also Nubians carrying gold, skins, and giraffes' tails (the latter being painted black). Giraffes' tails are highly prized from Kordofan to Uganda (see above, p. 6 and below, p. 87). In an Egyptian story they figure among the presents given to a ship-wrecked sailor by his kindly host, the giant serpent.

The walking giraffe amid the tribute-bearers (Fig. 7) is a very young bull of the Nubian variety. It is light pinkish brown in color, with a few markings on the neck. The immaturity of the animal is denoted by the very slight development of the median horn.

The temples of Nubia contain many references to the Nubian wars of Ramses II (1292-25 B. C). Among the scenes cut on the rock side-walls of the excavated forecourt of the Bet el-Walli temple there is one portraying Ramses enthroned on the right; approaching from the left are two long lines of Negroes, bringing furniture of ebony and ivory, panther-hides, gold in large rings, bows, myrrh, shields, elephants' tusks, billets of ebony, ostrich feathers, ostrich eggs, live animals including monkeys, panthers, a giraffe, ibexes, a dog, oxen with curved horns, and an ostrich (Breasted, *Ancient Records of Egypt*, Vol. III, p. 203). The giraffe in this rock-carving is of naturalistic style, but is not quite so accurate and true to nature as in other Egyptian monuments. It is reproduced by Professor Breasted in *American Journal of Semitic Languages* (Vol. XXIII, 1906, p. 62).

Fig. 9, illustrating a giraffe with a monkey on its back, is from the tomb of Amunezeh (eighteenth dynasty) at Shekh Abd el-Gurna (compare Max W. Müller, *Egyptological Researches*, Vol. II, Carnegie Institution of Washington, 1910, p. 52 and colored reproductions in Plate 31). This is also from a series of wall-paintings representing



Fig. 9.

Giraffe with Baboon from the Tomb of Amunezeh.
After W. Max Müller.

tributes of the Nubians. The color of the animal is almost brown dotted with black spots. The hoofs are blue (intended for black). The monkey, probably a baboon, is green-blue with a red face and exaggerated long tail. The uplifted hand of the leader must have held a rope tied to the baboon, and he guides the giraffe by a rope fastened

to its right fore leg. To the right of the animal the hieroglyph for the giraffe is added.

Two small green-glazed figurines of the Saitic or Ptolemaic epoch have been published and described by G. Daressy (*Deux figurations de giraffe, Annales du Service des Antiquités de l'Egypte, Cairo, Vol. VII, 1906, pp. 61-63, 2 figs.*). These represent figures of a headless man with what is explained as a giraffe crouching beside him. It is difficult, however, to recognize giraffes in these animals, as far as the illustrations published in the article are concerned. Crouching giraffes are not known from Egyptian monuments, and no clay figures of giraffes have become known from the Ptolemaic and Graeco-Roman periods.

Ptolemy II Philadelphus (285-247 B.C.) showed a live giraffe to the inhabitants of Alexandria in his triumphal procession through this city. In all periods of history Egypt continued to be the great distributing centre for giraffes, as will be seen in the chapters to follow. It supplied them to the Romans, the emperors of Byzance, the Arab Caliphs, to Spain and Italy in the middle ages, and to Italy, France, and England in more recent times.

REPRESENTATIONS OF THE GIRAFFE IN AFRICA OUTSIDE OF EGYPT

We made the acquaintance of the Bushmen as ostrich-hunters and artists depicting the ostrich (Leaflet 23). They were no less successful in producing rapid and vivid outline sketches of giraffes. At the time of the great artistic development of the Bushmen the whole fauna of South Africa was immensely rich and abounded in animals now extinct, like the oryx which frequented the plains of the Zwart Kei, the giraffe which abounded in the forests of Transval, buffalo, elephant, rhinoceros, hippopotamus, zebra, quagga, gnu, antelopes, and ostrich.

Fig. 10 represents a running giraffe cut in sandstone by the Bushmen in the Orange River Colony. G. W. Stow (Native Races of South Africa) mentions after Barrow a Bushman cave-drawing of a giraffe and writes that he found himself several drawings of it in the Zwart Kei and Tsomo caves, also in the Wittebergen of the Orange Free State. This, according to Stow, indubitably proves that the giraffe was found in the early days over a far wider area of country than at present. Stow also refers to a number of chippings, chiefly representations of animals at Pniel, among these the head and neck of a giraffe which is said to be remarkably fine, both on account of its large size and the correctness of its outline.

G. M. Theal holds that no giraffes have ever been seen by Europeans south of the Orange River, but that as profiles of them are found in Bushman paintings along the Zwart Kei and Tsomo Rivers, it is believed that they must once have existed there. It may be the case, however, that in their artistic efforts the Bushmen did not confine themselves to the animals of their habitat, but may also have illustrated animals they encountered during their roving over the country.

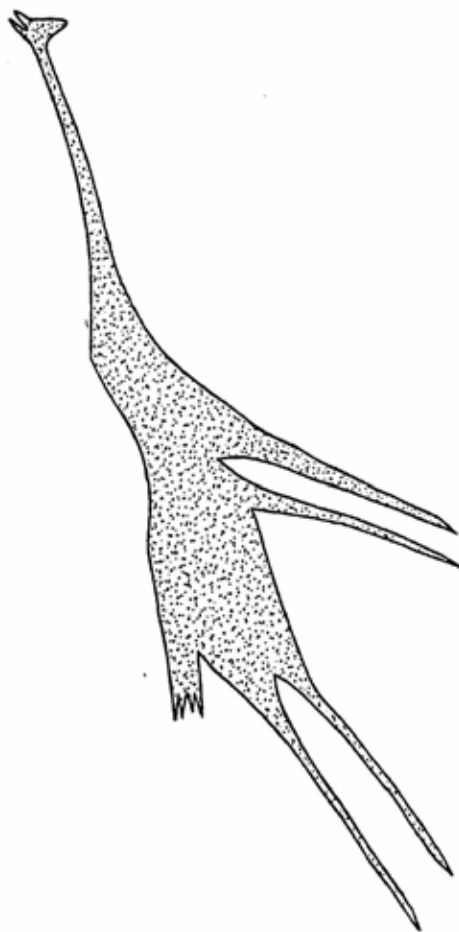


Fig. 10.
Rock-carving of Running Giraffe. Bushmen, South Africa.
After M. Helen Tongue.

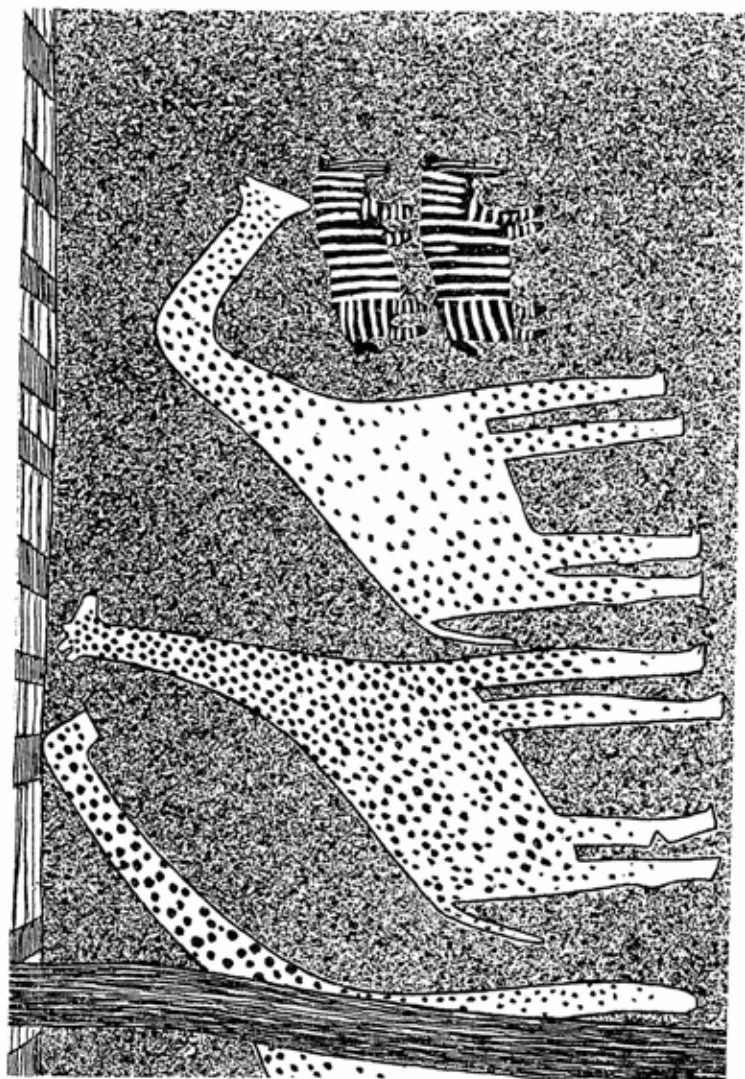


Fig. 11.

Three Giraffes and Two Zebras.
Mural Painting in Colors in the Council-house of the Royal Palace at
Gawiro, Southeast Africa.

In the folk-lore of the Hottentot the giraffe plays a prominent role.

A wall-painting from a council-room in the royal "palace" at Gaviro, Ubena, in Southeast Africa, shows three giraffes in company with two zebras (Fig. 11). While somewhat stiff and rather inexact in the shape of the body and legs, the movement and action of the animals are well observed, especially in the first, that bends its neck downward and touches one of the zebras, and in the third of which only the front part is represented.



Fig. 12.

Rock-engraving of Giraffe. Tuareg, Sahara.

After E. F. Gautier.

Fig. 12 illustrates a giraffe engraved in a rock in the Tuareg country in the Sahara. This station of rock-carvings among which camels, hunters on camel-back, and many other animals are found, was discovered by E. F. Gautier in 1903 (described by him in *L'Anthropologie*, 1904, p. 497). In his opinion, this picture bears all characteristics of a very great antiquity. The lines are deeply and profoundly cut. It is curious to find a representation of the giraffe in the desert area, where it has never occurred.

According to Gautier, the giraffe is the only animal in the art of Tuareg that does not belong to the fauna of the region, while all other animals do. This problem is not hard to solve, however. Considering the fact that live giraffes were traded by the Arabs to Mediterranean and Asiatic countries and that the commerce in giraffes goes back to the early relations between Egypt and Punt, giraffes could have been brought to Tuareg as well.

THE GIRAFFE AMONG ARABS AND PERSIANS

The giraffe was not known to the Hebrews at the time of Moses, as was formerly believed. This opinion was suggested by the Hebrew word *zamar* or *zemer*, which occurs in Deuteronomy (XIV, 5), and solely in this passage as one of the animals whose flesh was sanctioned by the Mosaic legislation. In the Seventy this Hebrew animal name has been translated into Greek as *kamelopardalis*, and the Vulgate gives *camelopardalus* as the corresponding Latin translation. Edward Topsell, author of "The Historie of Four-footed Beastes" (1607), writes that the "flesh of the giraffe is good for meat, and was allowed to the Jews by God himselfe for a cleane beast." J. Ogilby, in his work "Africa" (1607), commits a curious error by writing with reference to the giraffe, "Caesar first shewed him at Rome, though 'tis probable they formerly abounded in Judea, being a food prohibited to the Jews." There is no evidence whatever to the effect that the giraffe ever occurred in Palestine or anywhere in western Asia during historical times, nor is it safe to assume with Joly and Lavocat that Moses might have been acquainted with the animal from pictures on Egyptian monuments. A legislator permits or prohibits an animal known to his nation from real life, but hardly one merely known pictorially. Bochart, in his erudite folio on the animals of the Bible (*Hierozoicon*), has arrived at the conclusion that the ancient Hebrews were not acquainted with the giraffe, and explains *zamar* as a species of antelope, probably the chamois (*Antilope rupicapra*). "Chamois" was adopted by the English Version as rendering of *zamar*, but this, in all probability, is not correct either, for the chamois does not occur in Palestine. The general consensus of opinion now is that the "*kamelopardalis*" of the Seventy rests on a mistranslation and that the animal intended by the Hebrew word is the wild goat or mountain sheep with curved horns. Professor J. M. Powis

Smith of the University of Chicago informs me, "The best rendering of *zamar* is 'mountain sheep.' The Seventy rendering, I take it, is a mere guess and a wild one at that. The word was probably unknown, and they took a free shot at it."

The Arabs made the acquaintance of the giraffe in Abyssinia at a comparatively late period. Their name for the animal, *zarāfa* or *zurāfa*, is supposed to be derived from Ethiopic *zarat*. In early Arabic poetry the animal is not mentioned, as it never occurred in Arabia.

Masudi, an eminent Arabic traveller and historian, who died in A.D. 956 or 957, writes that the giraffe generally lives in Nubia, but is not found in Abyssinia; there is no agreement as to the origin of the animal; some regard it as a variety of the camel, others assert that it has sprung from the union of the camel and the panther; others, again, hold that it is a distinct species like the horse, the donkey, and the ox, not, however, the product of a crossing like the mule. He emphasizes the giraffe's gentleness and the affection which it displays for the members of its family, and adds that in this species, in the same manner as among elephants, there are wild and tame individuals.

Ibn al-Faqih, an Arabic geographer from Hamadan in Persia, who wrote about A.D. 1022, gives the following account:—

"The giraffe lives in Nubia. It is said that it takes its place between the panther and the camel mare, that the panther mates with the latter who produces the giraffe. There are cases analogous to this one: thus the horse pairs with the ass, the wolf with the hyena, the panther with the lioness from whom the pard issues. The giraffe has the stature of the camel, the head of a stag, hoofs like those of cattle, and a tail like a bird. Its fore legs (literally, 'hands') have two callosities, while these are lacking in its hind legs. Its skin is panther-like and presents a marvellous sight. In Persia the animal is called 'camel-bull-panther' (*ushtur* or *shutur-gāw-palank*), because it has some-

thing in common with each of these three. Some scholars assert that the giraffe is generated by stallions of various kinds. This, however, is erroneous, for the horse does not impregnate the camel nor does the camel the cow."

Zakariyā al-Qazwini (1203-83), Arabic author of a cosmography and a work on historical geography, writes in his description of Abyssinia thus:—

"The giraffe is produced by the camel mare, the male hyena, and the wild cow. Its head is shaped like that of a stag, its horns like that of cattle, its legs like those of a nine year old camel, its hoofs like those of cattle, its tail like that of a gazelle; its neck is very long, its hands are long, and its feet are short. A scholar, Timat by name, relates that in the southern equatorial region animals of various kinds congregate during the summer around the cisterns, being driven there by heat and thirst; if an animal of a certain species covers one of another species, strange animals like the giraffe are born: the male hyena mates with the female Abyssinian camel; if the young one is a male and covers the wild cow, it will produce a giraffe."

In another passage Qazwini informs us that the giraffe has knees only in its fore legs, but no knees in its hind legs; in walking it advances its left hind leg first and then its right fore leg, contrary to the habit of all other quadrupeds which advance the right fore leg first and then the left hind leg. Among its natural qualities are affection and sociableness. As Allah knew that it would derive its sustenance from trees, He created its fore legs longer than its hind ones, to enable it to graze on them easily."

This theory of a mongrel origin of a giraffe was merely a popular belief suggested by the peculiar characteristics of the animal, but was not accepted by those who were able to think. An interesting instance to this effect is cited by Damiri (1344-1405) in his Zoological Dictionary (*Hayat al-Hayawān*, "Life of Animals"), who writes, "al-Jāhiz is not satisfied with this explanation and states that it is the outcome of sheer ignorance and emanates only from people

who lack the faculty of discrimination; for God creates whatever He pleases. The giraffe, on the contrary, is a distinct species of animal, independent (*sui generis*) like the horse or the ass. This is proved by the fact that it is able to produce one like itself, a fact which has been ascertained by observation." Masudi, as mentioned, says also that many regard the giraffe as a particular species, not as the result of any cross-breed.

Dimashki, who wrote a *Cosmography* about A.D. 1325, commits an odd error by localizing the giraffe in Ceylon (Serendib), but gives a correct description of it. "It is an animal of a remarkable shape," he writes, "it has a neck like a camel, a skin like a leopard and stag, horns like an antelope, teeth like a cow, a head like a camel, and a back like a cock. Its fore legs, as well as its neck, are very long; it measures ten ells and more in height. Its hind legs are very short and without articulation. Only its front legs have knees as among other animals, because the neck is too short in proportion with its fore legs when it grazes on the ground. In walking it sets its right foot ahead and its left foot behind, in distinction from other quadrupeds. It has a gentle disposition, and is sociable toward its companions. It belongs to the ruminants, and its ordure is like that of camels."

Makrizi (1365-1442), in his *History of the Mamluk Sultans of Egypt*, reports that in the year 1292 a female giraffe in the Castle of the Hill (at Cairo) gave birth to a young one, which was nursed by a cow. This was regarded as an auspicious event which is recorded by three other Arab chroniclers.

The Arabs, like most Oriental nations, paid much attention to dreams, and developed a pseudo-science of divination based on dreams. Thus the appearance of a giraffe in a dream is interpreted by Damiri as follows: "A giraffe seen in a dream indicates a financial calamity. Sometimes it signifies a respectable or a beautiful woman, or the receipt of strange news to come from the direction from which the



CHINESE PAINTING OF A GIRAFFE OF THE YEAR 1485 (p. 47).
In Collections of Field Museum. Blackstone Expedition to China, 1908.

animal is seen. There is, however, no good in the news. When a giraffe appears in a dream to enter a country or town, no gain is to be obtained from it, for it augurs a calamity to your property; there is no guaranty for the safety of a friend, a spouse, or a wife whom you may want to take through your homestead. A giraffe in a dream may sometimes be interpreted to mean a wife who is not faithful to her husband, because in the shape of its back it differs from the riding-beasts."

The flesh of the giraffe is consumed by the Arab hunters of Abyssinia. The long tendons of the legs are highly prized by the Arabs and used like thread for sewing leather, also for guitar strings. The Arab tribes Fazoql and Bertat make shields of giraffe-hide.

The Arabs were the most active dealers in giraffes and traded the animals to the Mediterranean countries as well as to Persia, India, and China. Masudi, in the tenth century, informs us that giraffes were sent as presents from Nubia to the kings of Persia, as in later days they were offered to Arab princes, to the first Caliphs of the house of Abbas and the governors of Egypt.

When Egypt was a province of the Caliphate (A.D. 641-868), Nubia was invaded by the Emir Abdallāh Ibn Sad, and a treaty was concluded in A.D. 652, compelling the Nubians to pay an annual tribute consisting of four hundred slaves, a number of camels, two elephants, and two giraffes. During the reign of the Caliph al-Mahdi (A.D. 775-785) it was ordered again that Nubia be held responsible every year for three hundred and sixty slaves and one giraffe. This tribute was paid for two centuries when it was repudiated in A.D. 854, but this revolt was soon crushed. In 1275, under the rule of the Mamluks, the Sudan was annexed by Egypt, and three giraffes, three elephants, panthers, dromedaries, and oxen were stipulated among the annual tribute.

El-Aziz (A.D. 975-996), a Caliph of the Fatimid empire of Egypt, a bold hunter and a fearless general, was fond of

rare animals, and had many strange animals and birds brought to Cairo. Female elephants, which the Nubians had carefully reserved, were at length introduced for breeding under his reign, and a stuffed rhinoceros delighted the crowd. On the occasion of a solemn festival celebrated by the Caliph in A.D. 990, elephants and a giraffe were conducted in front of him, and several giraffes marched before the Caliph on other occasions. Gold vases with figures of giraffes, elephants, and other animals were made for him; also gold statuettes of giraffes and elephants.

Beybars (1260-77), the real founder of the Mamluk empire in Egypt, a native of Kipchak (between the Caspian and the Ural Mountains) and possessor of untold wealth, sent in 1262 giraffes, together with Arab horses, dromedaries, mules, wild asses, apes, parrots, and many other gifts to his ally, the Khan of the Golden Horde.

Ruy Gonzalez de Clavijo, a Spanish knight, who went as ambassador to the court of Timur at Samarkand in the years 1403-06, tells the following interesting story:—

When the ambassadors arrived in the city of Khoi [in the province of Azerbaijan, Persia], they found in it an ambassador, whom the Sultan of Babylon had sent to Timur Beg; who had with him as many as twenty horses and fifteen camels, laden with presents, which the Sultan of Babylon [probably an ambassador from Cairo] sent to Timur Beg. He also had six rare birds, and a beast called *jornufa* (giraffe), which creature is made with the body as large as that of a horse, a very long neck, and the fore legs much longer than the hind ones. Its hoofs are like those of a bullock. From the nail of the hoof to the shoulder it measured sixteen *palmos*; and when it wished to stretch its neck, it raised it so high that it was wonderful; and its neck was slender, like that of a stag. The hind legs were so short, in comparison with the fore legs, that a man who had never seen it before, might well believe that it was seated, although it was standing up; and the buttocks were worn, like those of a buffalo. The belly was white, and the

body was of a golden color, surrounded by large white rings. The face was like that of a stag, and on the forehead it had a large projection, the eyes were large and round, and the ears like those of a horse. Near the ears it had two small round horns, covered with hair, which looked like those of a very young stag. The neck was long, and could be raised so high, that it could reach up to eat from the top of a very high wall; and it could reach up to eat the leaves from the top of a very lofty tree, which it did plenteously. To a man who had never seen such an animal before, it was a wonderful sight."

The giraffe which Clavijo observed and described had been sent to Timur in the year 1402 soon after the battle of Angora by the Mamluk Sultan Faraj of Egypt, who dispatched two ambassadors to his court with rich presents, among these a giraffe.

In the History of Timur Begh or Tamerlan written in Persian by Sherefeddin Ali of Yezd in the fifteenth century the presentation of a giraffe is mentioned. When Timur in 1414 celebrated the marriage of his grandchildren, an envoy from the sovereign of Egypt arrived, and had an audience with the emperor, bringing presents of minted silver, precious stones, sumptuous textiles, and among other curiosities a giraffe, which the Persian chronicler writes is one of the rarest animals of the earth, and nine ostriches, of the largest of Africa.

Josafa Barbaro and Ambrogio Contarini, Venetian travellers, saw in 1471 a live giraffe at the court of Persia, and describe it in the old English translation of W. Thomas as follows: "After this was brought forth a Giraffa, which they called Girnaffa [the Italian original in Ramusio has: Zirapha which they also call Zirnapha or Giraffa], a beast as long legged as a great horse, or rather more; but the hinder legs are half a foot shorter than the former, and is cloven footed as an ox, in maner of a violet color mingled all over with black spots, great and small according to their places: the belly white somewhat long haired, thin haired

on the tail as an ass, little horns like a goat, and the neck more than a pace long: the tongue a yard long, violet and round as an eele, with the which he grazeth or eateth the leaves from the trees so swiftly that it is scarcely to be perceived. He is headed like a hart, but more finely, with the which standing on the ground he will reach fifteen foot high. His breast is broader than the horse, but the croup narrow like an ass; he seemeth to be a marvellous fair beast, but not like to bear any burden."

The name *surnāpa* or *zurnāpa* for the giraffe is regarded as peculiar to Persian, but it was heard and recorded by P. Belon at Cairo toward the middle of the sixteenth century and a little later by Moryson at Constantinople (cf. pp. 67, 84). This goes to show that the word *surnāpa* was also employed in the colloquial Osmanli and Arabic of the sixteenth century. Yule regards it as a form curiously divergent of *zarāfa*, perhaps nearer the original. A popular Persian etymology analyzes the word into *zurnā* ("hautboy") and *pā* ("foot"), in allusion to the long and thin legs of the giraffe ("having legs shaped like an hautboy"),—assuredly a far-fetched and artificial explanation. Possibly this form may have originated in Ethiopia, presenting a compound of *zur* and Ethiopic *nabun* pointed out by Pliny. Bochart derives this *nabun* from *naba* ("to be elevated").

A very curious picture of a giraffe by a Persian artist is reproduced in Plate II. It is contained in the *Manafi-i-Hayawān* ("Description of Animals"), an illustrated Persian bestiary of eighty-five folios, completed between the years A.D. 1295 and 1300 and now preserved in the Pierpont Morgan Library of New York. I am under obligation to Miss Belle Da Costa Greene, director of the library, for kindly placing a photograph of the giraffe picture at my disposal. A brief description of this beautiful manuscript has been given by C. Anet (*Burlington Magazine*, 1913, pp. 224, 261) with reproductions of some fine selected specimens of the illustrations, but not of the gi-

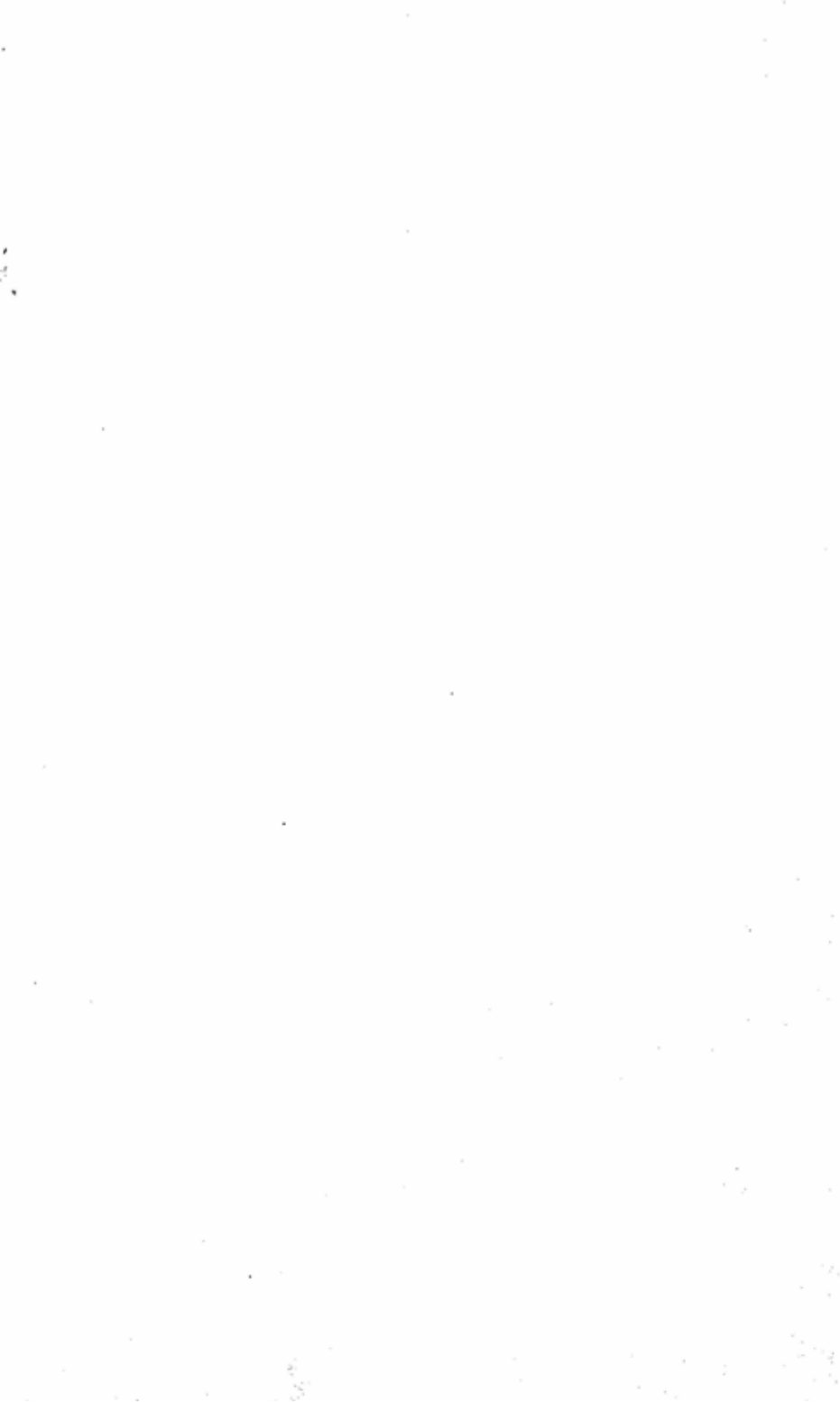
raffe which is reproduced here for the first time. The text is a Persian translation of an earlier Arabic manuscript made at the command of Ghazan Khan, a descendant of the Mongol rulers of Persia. In the opinion of C. Anet, the animals of this Persian album are of the highest order, convey an idea of what may be called the primitive period of Persian painting, and show a magnificent originality and a force in style and drawing.

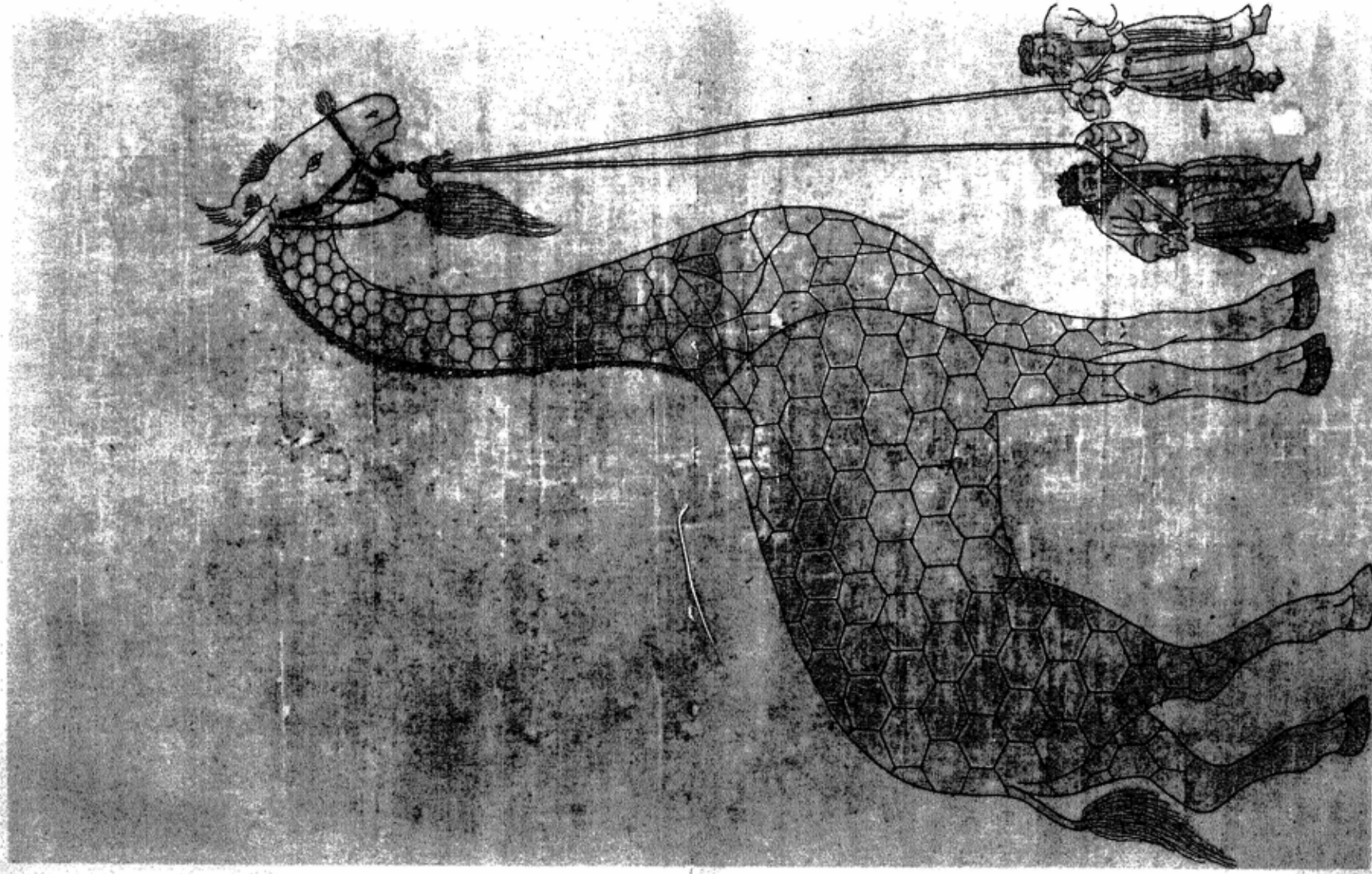
The interesting feature of the Persian painting is that it represents not merely a giraffe in general, but apparently depicts a now well-known particular species, the so-called reticulated giraffe (Fig. 1 on p. 4), which inhabits the Somali country and is chestnut-colored, covered with a network of white lines. The net-work is treated as more or less regular hexagons, but the artist has reproduced the appearance of the characteristic markings of this species quite correctly, as comparison with Fig. 1 will show. Head, neck and body are correctly outlined in general; only the jointless fore legs are stiff. A collar with eight small bells is hung around the animal's neck. Each of its feet appears to be manacled to impede its free motion. It is placed in a surrounding of graceful shrubbery tenanted by three birds. The leaves reach the animal's head, and in this manner the artist has apparently intended to convey a good idea of its extraordinary height.

The picture is accompanied by the following text in Persian which translated is as follows: "This animal is called *shutur-gāw-palank* [see above, p. 32], for the reason that every part or member of it exhibits similarity to a corresponding part of one of these three animals. Its hands (fore legs) and neck are like those of a camel, its skin is like that of a leopard, its teeth and hoofs are like those of an ox. It has long hands (fore legs) and short feet (hind legs). Only its hind legs are provided with knees, not its fore legs. Its head and tail are like those of a deer. Its young ones are said to start eating grass when they put their heads out of their mother's womb. They eat grass until satisfied.

Then the young ones return into their habitation (the womb). When they are severed from the mother, they will run away immediately, for the mother has a rough and flying tongue. When she licks the young one, its flesh and skin will come off, so that it will not approach the mother for three or four days." The statement in regard to the hind legs having knees is a curious inversion of what the Arabs say (above, p. 33).

Colonel Roosevelt (Life-histories of African Game Animals) describes the reticulated giraffe as follows: "The reticulated giraffe is marked on the neck by distinct reticulations, formed by the large rufous squares being set off sharply by narrow lines of white ground-color. This color pattern is so distinctive from the usual blotched coloration of other giraffes that the race has been considered a distinct species by many naturalists. Some specimens of the Uganda giraffe, however, show as narrow reticulations, but the ground-color is seldom so whitish in appearance. The horns of the bull are well developed, the frontal horn being especially large, and is exceeded in height only by the Uganda race. The body is marked by large squares of rufous separated by ochraceous reticulations, and differs decidedly from the small size and broken-edged spots of the Masai giraffe. The legs from the knees and hocks downward nearly as far as the fetlocks are reticulated by buffy-whitish ground-color and tawny blotches. One of the distinctive color marks of this race is the carrying forward of the reticulated pattern of the neck over the cheeks and the upper throat to the chin. The mandible shows distinctive characters, being low at the condyles, and having short coronoid processes. The frontal horn is remarkably robust and of great circumference, and is scarcely less in height than in the Uganda race; but the skull itself at this point is much less in height."





CHINESE PAINTING OF A GIRAFFE WITH TWO ARAB GUIDES, FIFTEENTH CENTURY (p. 48).
A. W. Bahr Collection.



THE GIRAFFE IN CHINESE RECORDS AND ART

The giraffe was not known to the ancient Chinese, contrary to what is assumed by certain sinologues. This erroneous conclusion is based on the fact that when live giraffes were first transported into China in the fifteenth century under the Ming dynasty, they were taken by the Chinese for the Kilin (*k'i-lin*), a fabulous creature of ancient mythology, and by way of reminiscence and poetic retrospection received the name *k'i-lin*. This, of course, does not mean that the ancient native conception of the Kilin was based on the giraffe, which in historical times was confined to Africa. In fact, neither the description nor the illustrations of the Kilin bear the slightest resemblance to a giraffe. The Kilin is said to have the body of a deer, the tail of an ox, a single horn, and to be covered with fish-scales. Its horn is covered with flesh, indicating that while able for war, it covets peace. It does not tread on any living thing, not even on living grass. It symbolizes gentleness, goodness, and benevolence. It is said to have appeared just previous to the death of Confucius, and it will appear whenever a benevolent sovereign rules; it was a mythical animal of good omen. The Kilin has a horn with a fleshy basis or fleshy horns, while the giraffe has two bony excrescences on its head which merely resemble horns, but are not. De Groot (see note on p. 96) insists on the good and gentle disposition being ascribed to either creature, but it is obvious that a zoological identification cannot be based on alleged psychological traits; many deer, sheep, and other animals may likewise be characterized in this manner. It is singular that De Groot remained entirely ignorant of the importations of giraffes into China and of what Chinese authors know about the subject.

It is clear that the characteristic features of the giraffe which impress every casual observer—the extraordinary height, the long neck, the proportion of fore and hind legs—

are not found in the Chinese descriptions of the Kilin and that several traits of the latter do not agree with the giraffe. Thus, the voice of the Kilin resembles the sound of a bell, and it walks with regular steps. The giraffe, however, has no voice at all. "It is an interesting fact that giraffes are absolutely mute, and even in their death-agonies never utter a sound" (Hutchinson's *Animals of All Countries*). Says G. Renshaw, "Giraffes are well known to be silent animals. I once heard the Southern giraffe still living in the London Zoo give a kind of coughing sneeze—the only recorded occasion, I believe, of these animals ever having been known to make *any noise at all!* It was, however, probably caused by some irritant in the nasal passage, and cannot be called a *vocal* sound."

The only points of resemblance made by the Chinese between the Kilin and the giraffe are their bodies being shaped like a deer, their tails being like that of an ox, and their gentle disposition. This identification, it should be borne in mind, was established as recently as the fifteenth century when the first live giraffes arrived in China.

The *Sü po wu chi*, a book compiled by Li Shi about the middle of the twelfth century, apparently contains one of the earliest Chinese literary allusions to the giraffe. "The country Po-pa-li [Berbera, on the Somali coast of the Gulf of Aden] harbors a strange animal called camel-ox (*t'o niu*). Its skin is like that of a leopard, its hoof is similar to that of an ox, but the animal is devoid of a hump. Its neck is nine feet long, and its body is over ten feet high."

The designation "camel-ox" corresponds exactly to a Persian designation of the giraffe, *ushtur-gāw* (*ushtur*, "camel"; *gāw*, "ox, cow"), mentioned as early as the tenth century by the Arabic writer Masudi. It may hence be inferred that the information received in regard to the animal had come to China from Persia.

The second reference to the giraffe is made by Chao Ju-kwa in his work *Chu fan chi*, written in A.D. 1225. This author was collector of customs in the port of Ts'üan-chou

fu in the province of Fu-kien, where he came in close contact with Arabian merchants and representatives of other foreign nations who then entertained a lucrative commerce with China. From oral information given him by foreign traders and from earlier Chinese sources he compiled his brief book. In his notes on the Berbera or Somali coast of East Africa he mentions as a native of that country "a wild animal called *tsu-la*, which resembles a camel in shape, an ox in size, and is yellow of color. Its fore legs are five feet long, while its hind feet are only three feet in length. Its head is high and looks upward. Its skin is an inch thick." The word *tsu-la* used in the Chinese text is not Chinese, but is of Arabic origin; it is intended to reproduce *zurāfa*, the Arabic term for the giraffe.

African animals were transported to China as early as the thirteenth century under the Yüan or Mongol dynasty. We are informed, for instance, in the Annals of this dynasty that in the year 1287 an envoy from Mabar (Malabar, on the south-west coast of India) presented the emperor with "a strange animal resembling a mule, but larger and covered with hair mottled black and white; it was called *a-t'a-pi*." Judging from this name, the beast appears to be identical with the *topi*, the Swahili name for the *Topi damaliscus* (*Damaliscus jimila*), a kind of antelope peculiar to East Africa, also called bastard hartebeest (see, further, note on p. 96).

In A.D. 1289 the Chinese emperor was presented with two zebras from Mabar, and in the following year another envoy arrived from the same country and offered two piebald oxen, a buffalo, and a tiger-cat. The giraffe, as far as I know, is not mentioned in the Yüan Annals, although there is no reason why it should not have come along with *topi* and zebra. Malabar, at that time, was in close commercial relations with the ports of southern Arabia, and it was the Arabs who brought these live animals from the Somali coast to southern Arabia and thence transhipped them to India.

There are in the Chinese Annals several records of giraffes being sent alive as gifts to the Chinese emperors during the fifteenth century. In that period a new impetus was given to the exploration of the countries of the Indian Ocean through the exploits of Cheng Ho, eunuch and navigator. In A.D. 1408 and 1412 he conducted, with a fleet of sixty-two ships, naval expeditions to the realms of south-eastern Asia, advancing as far as Ceylon, and inducing many states to send envoys back with him to his native country. In 1415 and again in 1421 he returned with the foreign envoys to their countries in order to open trading relations with them. In 1424 he was sent to Sumatra. In 1425, as no envoys had come to Peking, he and his old lieutenant, Wang King-hung, visited seventeen countries, including Hormuz in the Persian Gulf. This was at a time when no European sail had yet been sighted on the Indian Ocean.

In A.D. 1414 (the twelfth year of the period Yung-lo, under the emperor Ch'eng Tsu), Saifud-din, king of Bengal, sent envoys to China with an offering of giraffes and famous horses. The Board of Rites asked permission of the emperor to present an address of congratulation. As the giraffe was termed *k'i-lin*, and the fabulous *k'i-lin* of antiquity was reputed to appear only at the time of a virtuous ruler, the giraffe was obviously regarded as an auspicious omen, and the proposed address of congratulation was chiefly intended as a flattery to the sovereign, who had sense enough to see through the game and denied the request.

In A.D. 1415 the country Ma-lin (Malindi in British East Africa) offered a giraffe to the emperor. On this occasion the President of the Board of Rites, Lü Chen, made a report to the throne, requesting that the officials should offer congratulations to the emperor; the request, however, was denied again.

In the year 1421 the chamberlain Chou travelled for the purpose of purchasing giraffes, lions, and other rare

animals, rather to satisfy his own vanity than to make a contribution to knowledge.

In the year 1422 an imperial envoy, the eunuch Li, was sent to Aden with a letter and presents to the king. On his arrival he was honorably received, and on landing was met by the king and conducted by him to his palace. During the sojourn of the embassy, the people who had rarities were permitted to offer them for sale. Cat's-eyes of extraordinary size, rubies, and other precious stones, large branches of coral, amber, and attar of roses were among the articles purchased. Giraffes, lions, zebras, leopards, ostriches, and white pigeons were also offered for sale. An account of this expedition was written by Ma Huan, a Chinese Mohammedan familiar with the Arabic language. He was attached to the suite of Cheng Ho on his cruise in the Indian Ocean, and published on his return (between 1425 and 1432) an interesting geographical work (*Ying yai sheng lan*) in which the twenty countries visited by the expedition are described. With reference to Aden he remarks that the giraffe is found there; it was, of course, not a native of Aden, either at that time or at present, but was transported there by the Arabs from the east coast of Africa. Ma Huan describes the animal "as having fore legs nine feet high and hind legs about six feet; its head is raised, and its neck is sixteen feet long [this, in fact, is the total height of the animal from head to foot]; owing to its fore quarters being high and its hind quarters low it cannot be ridden; it has two short, fleshy horns close to its ears; its tail is like that of a cow, and its body like that of a deer; its hoof is divided into three sections; its mouth is wide and flat, and it feeds on millet, beans, and flour cakes." The last remark shows that the question is of giraffes kept in captivity and receiving cereal food from the hands of men. It appears that a regular trade was carried on by the Arabs in these animals who aroused so much curiosity and that Aden was the centre of this commercial activity.

In the year 1430 Cheng Ho dispatched one of his companions to Calicut in southern India. Having heard that a trading vessel was to sail from that port to Arabia, he commanded this officer to embark and take Chinese goods as presents for the native ruler along. The voyage lasted a year. The Chinese envoy purchased there fine pearls, precious stones, a giraffe (*k'i-lin*), a lion, and an ostrich.

In 1431 giraffes were sent as tribute by embassies from "the countries of the Southern Sea."

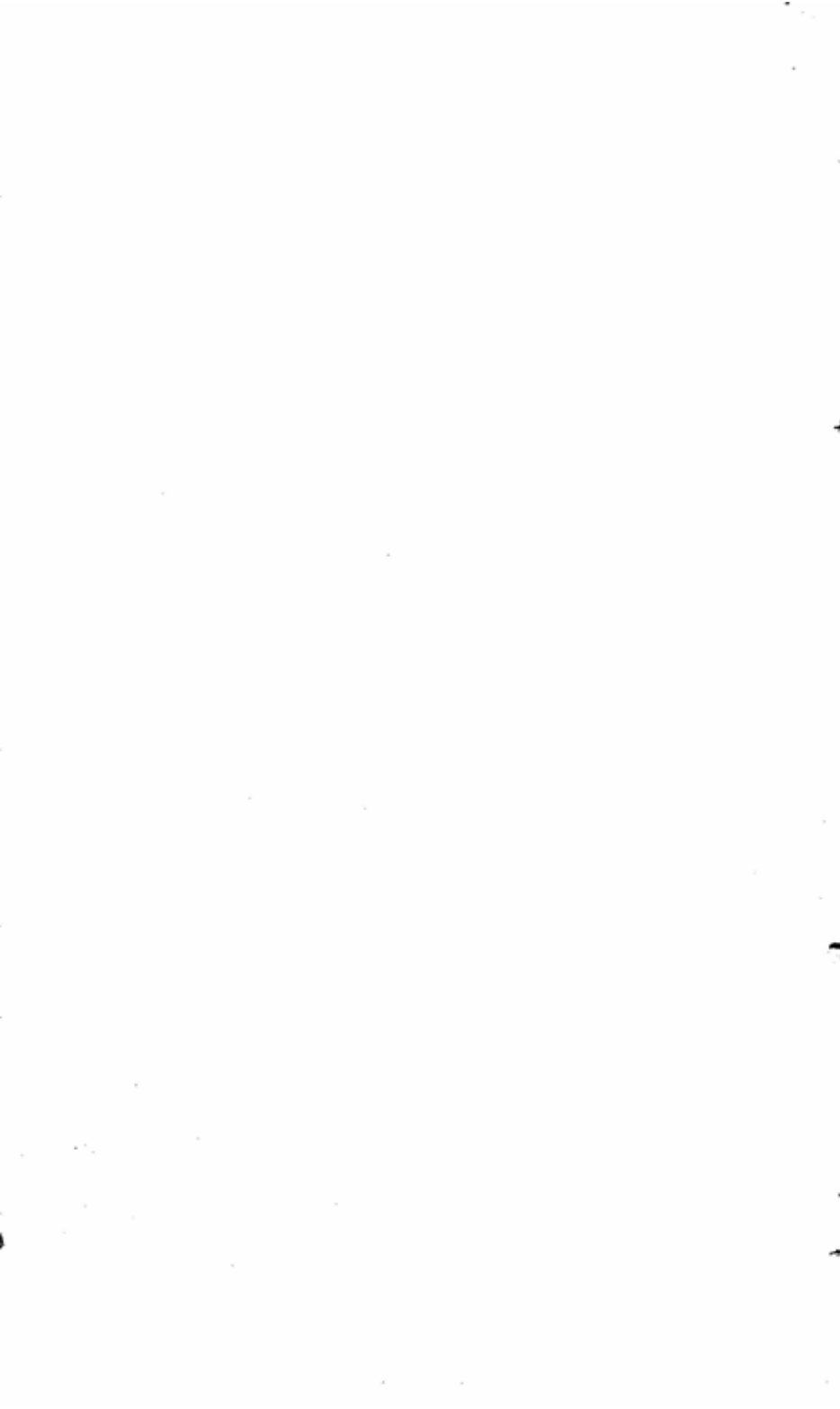
Fei Sin, who in 1436 wrote the *Sing ch'a sheng lan*, an account of four voyages made in the Indian Ocean by imperial envoys during the first quarter of the fifteenth century, mentions giraffes under the name *tsu-la-fa* (Arabic *zurāfa*) among the natural products of Arabia, particularly of Zufar on the south coast of the peninsula. He observes that "the ruler of the country and his ministers are very grateful to the Heavenly Dynasty [that is, China], and that their missions are constantly bringing presents of lions and giraffes to offer as tribute."

A noteworthy point is that the giraffes were not sent to China over the land route, as the ostriches, but were conveyed in ships over the maritime route from Aden by way of India. It is a pity that we have no detailed story as to how the animals were transported, for their transportation is a difficult problem even at the present time. Giraffes are very nervous and hence very awkward animals to transport, as they are liable to break their necks by suddenly twisting about in their travelling boxes. It is still more deplorable that the Chinese have not preserved a record of how the animals were cared for in their country, how long they lived, etc.

From an account in the *Wu tsa tsu*, written in 1610, it appears that under the reign of Ch'eng Tsu (1403-25) a painter was directed to make a sketch of a Kilin which had been captured; the artist's picture showed the animal's body shaped like that of a deer, but its neck was very long, conveying the impression that it was three to four feet in



GIRAFFE AT CAIRO, WITH TWO ARAB GUIDES (p. 83).
 Drawn by André Thorel, Middle of Sixteenth Century.
 After G. Loisel.



length. As at that time giraffes were brought to China, it is possible that they served as models for this picture of a Kilin.

Fig. 13 is a woodcut reproduced, after A. C. Moule, from a Chinese book, entitled "Pictures of Birds and Beasts of Foreign Lands" (*I yü k'in shou t'u*), a copy of which is preserved in the University Library of Cambridge and which may have originated about or after 1420. The animal is designated in the engraving as *k'i-lin*; it is equipped with a headstall, and is guided by a bare-headed foreigner clad only with a skirt. There is a little stump between the animal's ears; the spots are represented by short lines. On



Fig. 13.

Giraffe Guided by a Mohammedan.
Drawing from a Chinese Book of about 1420.
After A. C. Moule.

the whole the artist seems to have endeavored to reproduce the general appearance of a deer; the neck is comparatively too short, the body is not correctly outlined, but the tail is fairly correct.

A Chinese painting representing a giraffe is reproduced in Plate III. It was obtained by me at Si-an fu in 1908. It is a long paper scroll dyed a deep black from which the picture, of circular shape (eleven inches in diameter) is set off in a light brown color. The giraffe is surprisingly well done, the shape of the head with two horns and the outlines of the body are well caught, while

no attempt is made at delineating the markings of the skin. The animal is shown freely in nature, surrounded by trees and brushwork,—a unique conception which, as far as I know, does not occur elsewhere.

The picture is inscribed at the top with a stanza of four lines, the characters being neatly written in gold ink. The poem is characterized as an "imperial composition" (*yü ch'i*). It reads,—

With the tail of an ox and the body of a deer, the animal is seen
walking through the wilderness.

Auspicious clouds are facing the sun, and the prosperity of the
government is clearly in evidence.

The people will meet with great success, and there will be a
year of abundant harvest.

There will be plenty of food, and with songs they will praise the
great peace.

Although the animal is not named, it results from the characteristics ("tail of an ox and body of a deer") that the Kilin is implicitly understood. Like the Kilin, the giraffe is considered an auspicious omen, presaging a prosperous government, a good harvest, abundance of victuals for all, and a peaceful reign. The poem, on its left side, is provided with a date which corresponds to our year 1485, and this may also be the date of the picture; or the latter may be somewhat earlier, and the poem was added to it in 1485; at any rate, the picture is a production of the fifteenth century, the age of the importation of giraffes.

The Chinese painting of a giraffe, reproduced in Plate IV, is of an entirely different character. It was obtained in China by Mr. A. W. Bahr, who kindly placed it at my disposal. The picture is painted on old silk, the surface of which is much disintegrated, measuring 54 x 33½ inches. It is not signed or sealed, or in any way inscribed. The giraffe is of imposing size, and the unknown Chinese artist has with remarkable effect brought out its height in comparison with its two Arab guides. The animal is provided with a green headstall, and the neck is adorned with a tassel of horse-hair dyed red and surmounted by metal-work. This tassel is of Chinese make, and was attached to the

animal on its arrival in China. Horses and mules are still decorated with such tassels. The almost regular designs of hexagons covering the body allow the inference that this animal is intended to represent the reticulated species which has been described above with reference to a Persian miniature (p. 39). The two turbaned and bearded Arabs are clad in long, red, girdled gowns and high boots, and are types full of character. Each holds the end of a halter in both his hands. This picture is doubtless a production of the Ming period, and very probably of the fifteenth century.

C. R. Eastman, who in 1917 published this painting in *Nature*, advanced the theory that it had been copied in China from models brought over from Persia, as in his judgment it bears a striking resemblance to the Persian miniature in Plate II. This entire speculation decidedly misses the mark. The two pictures, as every one may convince himself from the reproductions here published, have but one point in common,—the design of hexagons on the skins of the animals. This is simply due to the fact that the Persian and Chinese artists independently endeavored to sketch the same species, a reticulated giraffe. For the rest, their productions in style, composition, and spirit are fundamentally different; the pose and the equipment of the animals are wholly at variance. Mr. Eastman is ignorant of the history of the giraffe in Persia and China, and knows nothing of the numerous importations of live giraffes into both countries. He invents a comfortable theory to suit his convenience, and insinuates to Chinese painters a working method which they never followed. Nothing is known of Persian animal paintings imported into China and copied there, but we know as a fact that the Chinese were always fond of exotic animals and that their artists were in the habit of portraying them, either voluntarily or by imperial command.

It was customary with the Chinese emperors to have unusual animals which were presented by foreign poten-

tates painted or even sculptured by their court artists. To cite only two specific instances which occurred during the Ming period,—a black horse with a white forehead and white feet was offered to the emperor in 1439 by Ulug Beg Mirza, chief of Samarkand and eldest son of Shah Rukh, son of Timur. The emperor ordered a picture of it to be made. In 1490 an envoy from Samarkand, together with an embassy from Turfan, arrived to present a lion and a karakal. When the envoys had reached the province of Kan-su, pictures were taken of these beasts and forwarded by a courier to the emperor. The ministers proposed to decline these presents, but the emperor overruled them and accepted the gift.

For this reason I am convinced also that the Chinese paintings of giraffes of the fifteenth century were done from nature, from study of the live animals sent as gifts to the imperial court. The situation then was exactly the same in China as in contemporaneous Italy. It is indeed a curious coincidence that in the fifteenth century also live giraffes found their way into Italy and engaged the attention of Italian artists, as is set forth in the chapter "The Giraffe in the Age of the Renaissance." Here again there is no mysterious coeval connection between Chinese and Italian or between Italian and Persian artists. The art of all countries creates new forms at all times from the observation of nature. The activity of the Arabs supplied giraffes to Europe as well as to Persia, India, and China, but the interesting fact remains that the fifteenth century was the great age of the giraffe both in the East and West.

It seems that the importations of giraffes into China were restricted just to the fifteenth century and ceased thereafter. During the sixteenth century and under the Manchu dynasty we hear nothing of giraffes being introduced into the country. Through a curious force of circumstances the animal was brought again to the attention of the Chinese in the latter part of the seventeenth century.

This revival is due to the early Jesuit missionaries who endeavored to acquaint their new disciples with the methods and results of European science and who successfully diffused among them knowledge of geography, chronology, mathematics, physics, astronomy, and technology. In the course of the seventeenth and eighteenth centuries these indefatigable workers produced a remarkable literature both in Chinese and Manchu, which exerted no small degree of influence on the thought of Chinese scholarship. He who is eager to understand the intellectual development of Chinese society during that epoch cannot afford to neglect the literary efforts of those humble and enterprising pioneers. One of them, Ferdinand Verbiest (1623-88), who came to China in 1659, published about 1683 a small geographical work in Chinese, entitled *K'un yü t'u shwo*, which among other matters also contains illustrations with brief descriptions of some foreign animals. Eleven of these pictures have been reproduced in the great cyclopaedia *T'u shu tsi ch'eng*, published in 1726, and this series includes the giraffe (Fig. 14). The accompanying text runs thus: "West of Libya there is the country Abyssinia which produces an animal called *u-na-si-yo*. Its head is shaped like that of a horse; its fore feet are as long as those of a big horse, while its hind feet are short. Its neck is long; from the hoofs of the fore feet up to the head it is over twenty-five feet in height. Its skin is variegated in color. It is fed on hay and grass, and is shown in gardens to people as a curiosity. It turns round to show off its beauty to spectators, as though enjoying being looked at."

The source of Verbiest's illustration is Edward Topsell's "Historie of Foure-footed Beastes" (London, 1607). Topsell's picture of the giraffe reproduced in Fig. 18 (p. 68), as stated by himself, was drawn by Melchior Luorigus at Constantinople in the year of salvation 1559, and was afterwards sent to Germany, where it was imprinted at Nuremberg. A comparison of the two figures will show their close interrelation: the animal in outline and pose is identical

西
那
約
獸
圖

Fig. 14.

Chinese Woodcut of Giraffe Supplied by Ferdinand Verbleest.
From T'u shu tai ch'eng.

in both, the Arab's head-dress has been changed into a cockade of two feathers in the Chinese engraving, and a landscape of Chinese style has been added to the latter. Verbiest has also drawn on Topsell's description. "When any come to see them, they willingly and of their own accorde, turne themselves round as it were of purpose to shewe their soft haire, and beautifull colour, being as it were proud to ravish the eies of the beholders." This is the idea expressed by Verbiest in his concluding sentence. A similar observation was made by Vincent de Beauvais (p. 71).

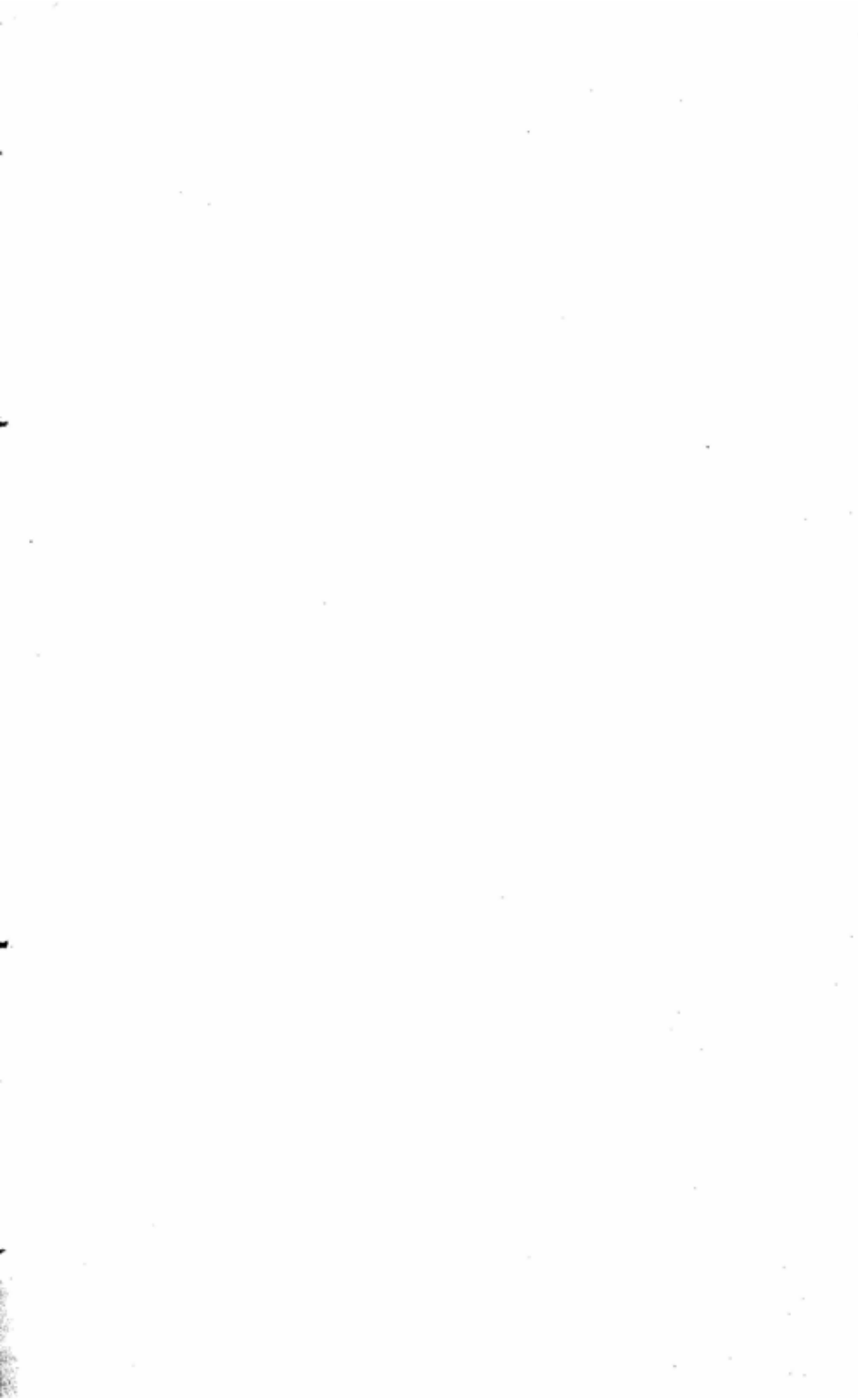
Topsell's influence is also visible in Verbiest's nomenclature, for the curious word *u-na-si-yo* coined by him is not traceable to any African or Oriental language. Topsell, enumerating the Arabic, Chaldaean, Persian, Greek and Latin names of the animal, says that Albertus adds the names *Oraflus* (hence the older French *orafle*) and *Orasius* (cf. p. 72). The latter was chosen by Verbiest and analyzed into *o-ra-si-o*; as there is no equivalent for *ra* in Chinese, he substituted the syllable *na*, and may have felt that he was the more justified in so doing, as Topsell offers an alleged Chaldaean word *Ana*.

The foreign word *u-na-si-yo*, introduced by Verbiest and only used by him, has never been adopted by the Chinese; but it is noteworthy that the Manchu coined from it a word for giraffe in the form *unasu*. This is contained in the *Ts'ing wen pu hui*, a Manchu-Chinese dictionary compiled in 1786. The Manchu word *unasu* is here explained by a Chinese gloss "*u-na-si-yo*, a strange animal from the country Ya-bi-si (Abyssinia)," briefly characterized with the words of Verbiest. Verbiest's term *u-na-si-yo* has nothing to do with the onager, the wild ass of Central Asia, as has been suggested by Sakharof and Moule.

To cite another example of how Verbiest made use of Topsell's data,—he gives the illustration of a beaver, an animal unknown in China, under the name *pan-ti*, which for a long time was a puzzle to me, as it defies identification

with any name for the beaver in Europe and elsewhere. Verbiest's picture is copied again from Topsell, who gives *Canis ponticus* as the beaver's Latin name, so that the Chinese rendering *pan-ti* is doubtless based on *ponticus*. Verbiest's *hu-lo* transcribes Latin *gulo*, the glutton; his animal *su*, which occurs in Chile in South America, is the Opossum described by Topsell (p. 660) as a "wild beast in the new-found world called Su." This native American name, together with the figure of the animal, was derived by him from A. Thevet's account of Brazil.

The Japanese call the giraffe *hyōda* ("panther-camel") or *kirin* (corresponding to Chinese *k'i-lin*).





GIRAFFE ON A PORTUGUESE COTTON PRINT, EIGHTEENTH CENTURY (p. 87).
In Art Institute, Chicago.

THE GIRAFFE IN INDIA

It has been pointed out in the preceding chapter that, according to Chinese records, giraffes were sent to China in A.D. 1414 by Saifud-din, king of Bengal, and that other African animals like topi and zebra were shipped to China from the kingdom of Malabar as early as the thirteenth century. It is therefore credible that, as H. Schiltberger reports about 1430, giraffes were found at Delhi. He calls them *surناسا* (for *surnafa*) and describes them as being "like a stag, but a tall animal with a long neck, four fathoms in length or longer." These African animals were transported to India by Arabs from the Somali coast by way of the ports of southern Arabia.

India has played a singular role in the historical records of the giraffe. To many ancient and mediaeval writers India was a rather vague notion, and was correlated with Ethiopia or confounded with other countries. Several ancient authors, as mentioned (p. 58), designated India as the home of the giraffe. During the middle ages a distinction was made between India the Greater and India the Lesser (India maior et minor), but there was little concord as to their identity and boundaries, and Abyssinia was termed Middle India. According to a Byzantine chronicle, the emperor Anastasius in A.D. 439 received as a gift from India an elephant and two animals called "camelopardalas." There is no doubt that "India" in this case must be equalized with Ethiopia. Cassianus Bassus, author of a work on agriculture (*Geoponica*, seventh century A.D.), narrates that he saw at Antiochia a camelopard which he says had been brought from India. "India," again, must be understood here as Ethiopia.

André Thevet (*Cosmographie universelle*, Vol. I, fol. 388b, 1575) was the champion of the strange idea that the habitat of the giraffe was India. He even specifies it "in the high mountains of Cangipu, Plumaticq and Caragan

which are in interior India beyond the river Ganges, some five degrees on this side of the tropic of the cancer." From there and several other localities giraffes were brought to an island which he calls Isle Amiadine or Anchédine, and where they were kept by the lords of the country for their pleasure. The Turks found six giraffes there, seized them and forcibly loaded them on their vessels; two of the animals died during the voyage, two others died when embarked at Aden, the two survivors landed safely at Cairo, where Thevet saw them during his three months' stay (compare below, p. 83). There is no doubt that owing to his ignorance of Arabic Thevet misunderstood his informants or interpreters, who he says were "Abyssinians and other Africans." He denies expressly the occurrence of the giraffe in Ethiopia, adding that if it is found there at the courts of the kings and princes, it was transported into that country from India.

Edward Topsell, in his "Historie of Foure-footed Beastes" (1607), defines the distribution of the giraffe thus: "These beastes are plentiful in Ethiopia, India, and the Georgian region, which was once called Media. Likewise in the province of Abasia in India, it is called Surnosa, and in Abasia Surnappa." Abasia, as will be seen (p. 74), is Marco Polo's designation of Abyssinia, and as Abyssinia was comprised under the term Middle India, the confusion with India proper arose in Topsell's mind, or was already contained in the source which he may have consulted.

F. Bernier, who travelled in the Mogul empire during the years 1656-68, reports that he saw at the court of the emperor Aureng-Zeb the skin of a zebra which ambassadors from the king of Ethiopia had brought along. The zebra was alive when it left Africa, but died during the voyage, and the ambassadors had sense enough to preserve its skin. Bernier describes it as "a small species of mule: no tiger is so beautifully marked, and no striped silken stuff is more finely and variously streaked." In view of the fact that India maintained considerable trade

with Guendar or Gondar, formerly capital of the Amharic kingdom of Abyssinia, it is quite possible that giraffes also came from there directly to India.

THE GIRAFFE AMONG THE ANCIENTS

The giraffe, being a strictly African animal, remained unknown to the civilizations of Western Asia in ancient times. In the period of the independence of Hellas the Greeks were not acquainted with it. Aristotle, the only great zoologist of antiquity, does not describe it. It has been supposed that the hippardion or pardion mentioned by Aristotle (*Historia animalium* II, 1) as having "a thin mane extending from the head to the withers," without further particulars, may be the giraffe, but this is highly improbable; at any rate, the evidence for such an identification is insufficient. In the epoch of Hellenism when the geographical horizon had widened and when giraffes were transmitted from Egypt to Rome, we meet the first description of them in late Greek and Roman authors. There is, accordingly, no representation of the animal in Greek art, nor is it found on antique coins or engraved gems.

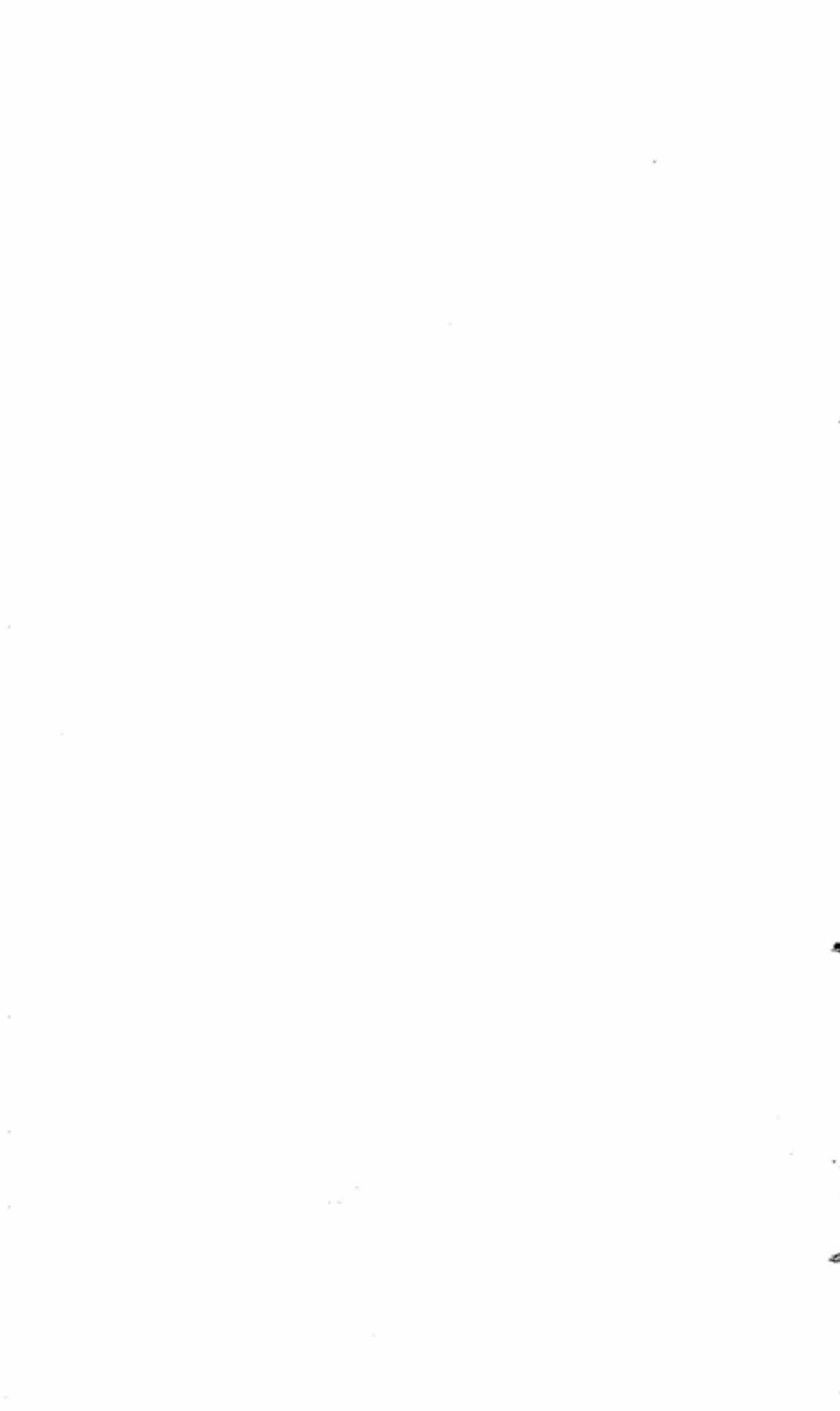
In 46 B.C. the first giraffe arrived in Rome, and marched in Caesar's triumphal procession; it was subsequently shown in the circus games held by Caesar. This event caused a great sensation, and is referred to by Varro, Horace, Dio Cassius, and Pliny.

Ten giraffes appeared in the circus of Rome in A.D. 247 under the emperor Gordianus III to take part in the celebration of the first millennium that had elapsed since the foundation of Rome. This was the largest number of live giraffes ever brought together at any time. Giraffes were also in the possession of the emperor Aurelianus (A.D. 270-275). In A.D. 274, when he celebrated his triumph over Zenobia, queen of Palmyra, several giraffes appeared in the circus games.

In regard to the habitat of the animal the notions of the ancients were vague. Some authors like Pausanias, Bassus, and others locate it in India; Artemidorus ascribes



GIRAFFE GUIDED BY AFRICAN NATIVE.
Photograph by Courtesy of Carl Hagenbeck.



it to Arabia, Agatharchides to the country of the Troglodytes; Pliny and Heliodorus place its home in Ethiopia.

Agatharchides of Cnidus, a Greek historian and geographer, who lived under Ptolemy Philometor (181-146 B.C.), is the author of a geographical treatise on the Red Sea, which has not been preserved, but extracts of which have been handed down by Diodorus (II, 51) and Photius. "The animals called camelopardalis by the Greeks," Agatharchides relates, "present a mixture of both the animals comprehended in this appellation. In size they are smaller than camels, but shorter in the neck; as to their head and the disposition of their eyes they are somewhat like a pard (*pardalis*). In the curvature of the back again they have some resemblance to the camel, but in color and growth of hair they are like pards (leopards). In like manner, as they have a long tail, they typify the nature of this animal."

Strabo (XVI. 4, 16) describes the giraffe after Artemidorus, a geographer and traveller from Ephesus (about 100 B.C.) as follows:—

"Camelopards are bred in these parts, but they do not in any respect resemble leopards, for their variegated skin is more like the streaked and spotted skin of fallow deer. The hinder quarters are so very much lower than the fore quarters, that it seems as if the animal were sitting upon its rump. It has the height of an ox; the fore legs are as long as those of the camel. The neck rises high and straight up, but the head greatly exceeds in height that of the camel. From this want of proportion, the speed of the animal is not so great, I think, as it is described by Artemidorus, according to whom it cannot be overtaken. It is, however, not a wild animal, but rather like a domesticated beast; for it shows no signs of a savage disposition."

Dio Cassius, in his Roman History (XLII), alludes to the fact that the camelopardalis was introduced into Rome by Caesar for the first time and exhibited to all. He describes the animal "as being like a camel in all respects, except that its legs are not all of the same length, the hind

legs being the shorter. Beginning from the rump it grows gradually higher, which gives it the appearance of mounting some elevation; and towering high aloft, it supports the rest of its body on its front legs and lifts its neck in turn to an unusual height. Its skin is spotted like a leopard, and for this reason it bears the joint name of both animals." This plain and clear notice is doubtless based on a personal experience with the giraffe.

In the same manner as the ostrich was believed to resemble the camel (Leaflet 23, p. 24), Pliny (VIII, 27) recognized an affinity of the camel with the giraffe. He describes it under the name *cameleopardus* and locates it correctly in Ethiopia, where, he says, it is called *nabun*. "It has a neck like that of a horse, feet and legs like those of an ox, a head like that of a camel, and is covered with white spots upon a red ground; hence it has been styled *cameleopard*. It was first seen at Rome in the circus games held by Caesar, the Dictator. Since that time it has been occasionally seen again. It is more remarkable for the singularity of its appearance than for its fierceness; for this reason it has obtained the name of the wild sheep." Indeed, the giraffe was called in Latin also *ovis fera* ("wild sheep").

Horace (Epistles II, 1) reproaches his fellow-citizens for the pleasure they take in the circus games, and on this occasion paraphrases the name *Camelopardalis*:—

Si foret in terris, rideret Democritus, seu
Diversum confusa genus panthera camelo,
Sive elephas albus vulgi converteret ora.

"Democritus, if he were still on earth,
would deride a throng gazing with open
mouth at a beast half camel, half panther,
or at a white elephant."

C. Julius Solinus (Collectanea rerum memorabilium, 30, 19) mentions the giraffe, but merely copies Pliny.

The poem *Kynegetika* ("The Hunt"), ascribed to the poet Oppianus (second century A.D.), but written by a poet from Apamea, contains a remarkably good description of

the giraffe (III, 461; ed. of P. Boudreaux, p. 119). "Muse! May thy sonorous and harmonious voice sing also of the animals of mixed nature formed by a combination of two different races among which the leopard with speckled back is united with the camel. Father Jupiter, what magnificence shines in thy numerous works! What an abundant variety is revealed in plants, quadrupeds, and marine mammals! How many gifts didst thou bestow on the mortals! Thou whose power has clothed with the leopard's robe this species of camel embellished with the richest colors,—noble and charming animals tamed by man without effort! They have a long neck, their body is sprinkled with various spots; short ears crown their heads devoid of hair in the upper part. Their legs are long, and their feet are large, but these limbs are unequal in size. The fore legs are much more elevated than those behind which are considerably shorter. The lame have such legs. From the middle of the head of these animals issue two horns which are not of the nature of ordinary horns; their soft points surrounded by hair rise on the temples and close to the ears. This species, like deer, has a small mouth slightly split and provided with small teeth as white as silk. Its eyes are vividly lustrous, and its tail, as short as that of a gazelle, is furnished with a tuft of black hair at the end."

Oppianus is the first author who mentions the horns of the giraffe, but curiously enough he does not mention its name.

Heliodorus from Emesa, bishop of Trikka, who lived in the third or fourth century A.D., has given the most detailed description of the animal, which is embodied in his romance *The Ethiopics* (*Aethiopica* X, 27). The envoys of the Axiomites of Abyssinia presented a giraffe to the king. "These also presented gifts among which, besides other things, there was a certain species of animal, of nature both extraordinary and wonderful. In size it approached that of a camel, but the surface of its skin was marked with flower-like spots. Its hind parts and the flanks were low,

and like those of a lion, but the shoulders, fore legs, and chest were much higher in proportion than the other limbs. His neck was slender, towering up from his large body into a swan-like neck. His head, like that of a camel, was about twice as large as that of a Libyan ostrich. His eyes were very bright and rolled with a fierce expression. His gait also was different from that of every other land or water animal, for his legs were not moved alternately but by pairs, those on the right side being moved together, and then, in like manner, those on the left together, one side at a time being raised before the other, so that in walking he always had one side dangling. For the rest he was so tame and gentle in disposition that his master led him wherever he pleased solely by a small cord fastened around his neck, and he followed him wherever he wanted, as though he were attached to him by means of a very large and strong fetter. At the appearance of this creature the multitude was struck with astonishment, and its form suggesting a name, it received from the populace, from the most prominent features of its body resembling a camel and a leopard, the improvised name of *camelopardalis*."

When the sacrificial animals at the altars of Helios and Selene (the Sun and Moon) got sight of the odd beast, a stampede ensued; four white horses and a pair of bulls were terrified as if they had beheld some phantom, freed themselves, and galloped wildly away.

Heliodorus' description is picturesque and fairly accurate, save the remark about the fierce glances of the animal, and is apparently based on direct observation. It is noteworthy that he is the first who comments on the amble of the giraffe (see above, p. 8).

A giraffe (reproduced in Fig. 15) is painted as a decoration on the wall of a mortuary vault (columbarium) of the Villa Pamfili at Rome. The animal is conducted by a young guide by means of a long bridle and carries a bell (*tintinnabulum*) around its neck, a symbol of its tameness. On the other side of the man there is an antelope. The

original has been destroyed, but a copy of the picture is preserved in Munich.

Two giraffes are represented in a mosaic now preserved in the palace Barberini of Palestrina (the ancient Praeneste, 21 miles from Rome). They are shown grazing and browsing (Fig. 16).

This mosaic was discovered in 1640 and purchased by Cardinal Barberini, who caused a careful drawing to be made of it, and then had it removed to Rome for repairs before having it relaid in his palace at Palestrina. It is said to have formed the pavement of part of the Temple of

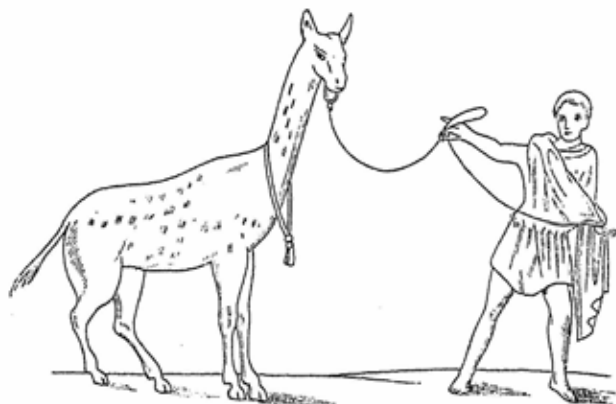


Fig. 15.

Roman Mural Painting of a Giraffe with Guide.
After Daremberg and Saglio.

Fortune at Praeneste, but this view is contested by S. Reinach. The upper portion of the composition illustrates animals of the Egyptian Sudan; they show a striking resemblance to those of the tomb of Marissa.

In the Necropolis of Marissa in Palestine there is in one of the tombs a painted frieze of animals of Graeco-Egyptian style, among these, in the opinion of the discoverers of the tomb, "what is evidently intended for a giraffe" (J. P. Peters and H. Thiersch, *Painted Tombs in the Necropolis of Marissa*, p. 25. Palestine Exploration Fund,

London, 1905). They describe it as follows: "The neck is very long, but the head, with its rounded ears and large, prominent eye, is much too big. The hind quarters and tail



Fig. 16.

Giraffes in the Mosaic of Palestrina.
After S. Reinach, *Répertoire de Peintures*.

are those of the deer, the fore legs are as long as the hind legs, and the withers actually lower than the rump. The spotted skin is represented by little black and red spots.

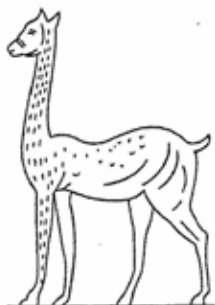
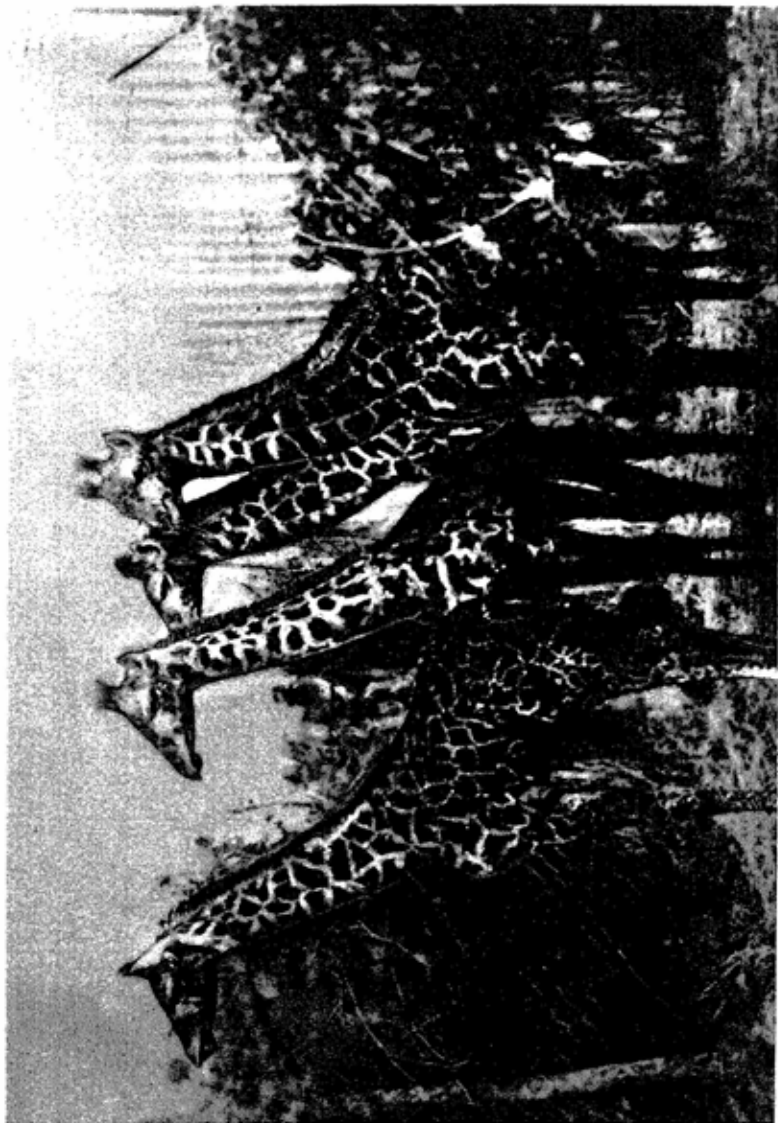


Fig. 17.

Giraffe (?) from Painted Tomb at Marissa, Palestine.
After Peters and Thiersch.

The title above it seems to read: *Kamelopardalos*." If the latter statement were correct, there would be no doubt of the artist's intention, but in the colored plate (VII) repro-





FOUR GIRAFFES IN HAGENBECK'S KRAAL AT THE FOOT OF THE KILIMANJARO, AFRICA.

Photograph by Courtesy of Carl Hagenbeck.

ducing this portion of the frieze I cannot recognize such a name. Be this as it may, the drawing itself is clumsy and rather represents a deer with a somewhat long neck, without any peculiar characteristics of a giraffe. The animal was probably known to the painter only from hearsay accounts (Fig. 17).

The ancients have not done justice to the giraffe, and have not produced any really artistic representation of it.

THE GIRAFFE AT CONSTANTINOPLE

Menageries were established at Constantinople during the eleventh century when Constantinus IX received an elephant and a giraffe from the Sultan of Egypt. These animals were repeatedly shown in the theatre of Byzance and marvelled at as wonders of nature. The Greeks were passionately fond of circus games and combats of ferocious beasts. The capture of Constantinople through the crusaders in 1203 and the subsequent pillage of the city undoubtedly led to the destruction of the amphitheatre which is no longer mentioned after that date. Notwithstanding, the Byzantine emperors continued to keep exotic animals. In 1257 Michael Paleologus received from the king of Ethiopia a giraffe which he paraded for several days through the streets of the city for the diversion of the Byzantines. This event was regarded as of sufficient importance that Pachymerus, the contemporaneous chronicler of the reign of Michael, took the opportunity of inserting in his work a detailed description of the animal. He emphasizes its gentle disposition and writes that it is so tame that it allows even children to play with it; it lives on grass, but also likes bread and barley no less than a sheep.

Philostorgius (A.D. 364-424), author of an ecclesiastic history (III, 11), speaks of the animals which had come from Ethiopia to Constantinople, and mentions drawings representing giraffes which he had seen at Constantinople himself. He gives a very brief description of the animal, comparing it with a large stag. According to Gyllius, author of a Topography of Constantinople, there were in that city stone statues of giraffes publicly exhibited, together with those of unicorns, tigers, and vultures, but they have since disappeared. It appears from these data that the giraffe must have played a certain role in Byzantine pictorial and plastic art.

The menagerie of Constantinople was visited and described by Pierre Belon in 1546, but no giraffe is mentioned

by him. Thirty years later the menagerie was enriched by a giraffe which took part in the festivities occasioned by the circumcision of Mahomet III. Baudier (*Histoire générale du Serrail*, Lyons, 1659) attended these festivities, and describes a giraffe exhibited on this occasion in the hippodrome. He makes the curious statement that its fore legs are four or five times higher than the hind legs. When conducted through the streets, he says, its head reached into the windows of the houses.

English travellers made the acquaintance of the giraffe at Constantinople. This accounts for the fact that the first English picture of the animal was secured by way of Constantinople.

Fig. 18 is a reproduction of the giraffe inserted in Edward Topsell's "*Historie of Foure-footed Beastes*," published in London, 1607. In regard to the source of his illustration, Topsell gives the following information: "The latter picture here set down was truely taken by Melchior Luorigus at Constantinople, in the yeare of salvation 1559. By the sight of one of these, sent to the great Turke for a present: which picture and discription, was afterwarde sent into Germany, and was imprinted at Norimberge."

Fynes Moryson, author of the *History of Ireland*, offers in his "*Itinerary*" (1597) the following story:—

"Here (at Constantinople) be the ruines of a pallace upon the very wals of the city, called the palace of Constantine, wherein I did see an elephant, called *philo* by the Turkes, and another beast newly brought out of Affricke (the mother of monsters), which beast is altogether unknowne in our parts, and is called *surnapa* by the people of Asia, *astanapa* by others, and *giraffa* by the Italians, the picture whereof I remember to have seene in the mappes of Mercator; and because the beast is very rare, I will describe his forme as well as I can. His haire is red coloured, with many blacke and white spots; I could scarce reach with the points of my fingers to the hinder part of his backe, which grew higher and higher towards his fore-

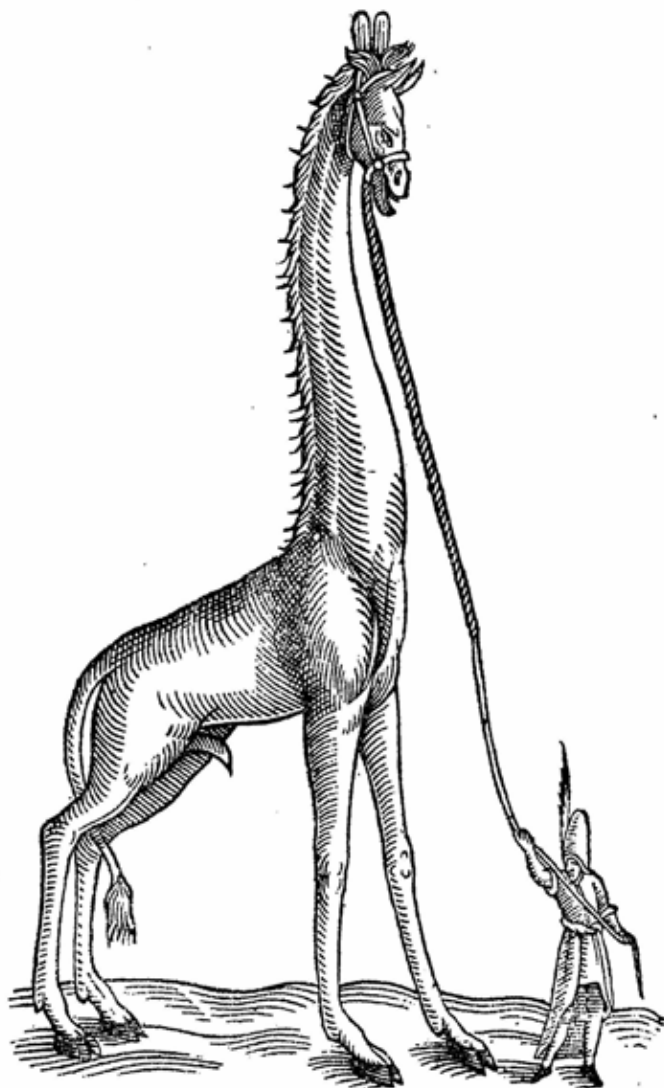


Fig. 18.

Giraffe from E. Topsell's *Historie of Foure-footed Beastes* (1607).
Drawn in 1559 by Melchior Luorigus at Constantinople.

shoulder, and his necke was thinne and some three els long. So as hee easily turned his head in a moment to any part or corner of the roome wherein he stood, putting it over the beams thereof, being built like a barne, and high for the Turkish building, not unlike the building of Italy, by reason whereof he many times put his nose in my necke, when I thought myselfe furthest distant from him, which familiarity of his I liked not; and howsoever the keepers assured me he would not hurt me yet I avoided these his familiar kisses as much as I could. His body was slender, not greater, but much higher then the body of a stagge or hart, and his head and face was like to that of a stagge, but the head was lesse and the face more beautifull: he had two hornes, but short and scarce halfe a foote long; and in the forehead he had two bunches of flesh, his ears and feete like an ox, and his legges like a stagge."

Of the oriental words given by Moryson, his *philo* for elephant is Turkish, which is derived from Persian *pil* (Aramaic *pil*, Arabic *fil*). His word *urnapa* for the giraffe is Persian *urnāpa* or *urnāpa*.

John Sanderson, a London merchant, visited Constantinople about the year 1600, and thus relates his impressions at the first sight of a giraffe:—

"The admirablest and fairest beast that ever I saw was a jarraff, as tame as a domesticall deere, and of a reddish deere colour, white brested and cloven footed: he was of a very great height, his fore-legs longer then the hinder, a very long necke, and headed like a camell, except two stumps of horne on his head. This fairest animall was sent out of Ethiopia, to this great Turkes father for a present; two Turkes the keepers of him, would make him kneele, but not before any Christian for any money."

THE GIRAFFE DURING THE MIDDLE AGES

After the fall of the Roman Empire the giraffe remained unknown in most parts of Europe for about a thousand years. Even that small sum of knowledge which the late Greeks and Romans possessed of the animal was lost during that period, and the few mediaeval writers who refer to it are content to quote Solinus; thus Isidorus of Seville (*Etymologiarum libri XX*, XII, 19, and *Origines XII*, 2), who wrote about A.D. 636, and who confounds the camelopard with the chameleon and for the rest copies Solinus, and likewise Rabanus Maurus (*De universo VIII B*), abbot of Fulda and archbishop of Mayence (about A.D. 844).

A new impetus to knowledge was received from the Arabs after their conquest of Spain. The Arabs were fond of animals, and an animal park belonged to the essentials of every Muslim court. When Abderrahman III (A.D. 912-961) in A.D. 936 founded the city Zahra, one mile north of Cordova, in Spain, he established there a garden where rare animals and birds were kept in cages and fenced enclosures. This was the first zoological garden in Europe.

In southern Europe the first great menageries were installed at the court of Frederick II (1212-50), king of the Two Sicilies. This prince, born in Sicily, rather Italian than German, had inherited from his Neapolitan mother a taste for oriental manners and a veritable passion for animals. He made a study of birds, especially those used for the chase, observed them, even dissected them, and wrote a treatise on ornithology. He had an elephant sent to him from India, and he presented to the Sultan of Egypt a white bear in exchange for a giraffe. At Palermo, his usual residence, he created a sort of zoological garden which has been described by Otto von St. Blasio. Frederick was on such good terms with the Muslims that his tolerance gave rise to suspicions of his orthodoxy. He was in correspon-

dence with the Arab philosopher Ibn Sabin. An Arab historian confesses that "the emperor was the most excellent among the kings of the Franks, devoted to science, philosophy, and medicine, and well-disposed toward Muslims."

In 1261 a giraffe was presented to Manfred, a son of Frederick, by the Sultan Beybars (above, p. 36).

It was accordingly the Arabs who acquainted European nations with the live giraffe. This fact is also borne out by our word for the animal, which is derived from the Arabic *zarāfa* or *zurāfa*. The old Spanish form *azorafa* has even preserved the Arabic article *al* (*al-zarāfa*). In modern Spanish and Portuguese it is *girafa*, in French *girafe* (older French *orafle* or *girafle*), Italian *giraffa*. During the middle ages it was sometimes identified with *seraph*: thus E. Topsell (*Historie of Four-footed Beastes*, 1607) still gives the Arabic name as *Sarapha*, and B. von Breydenbach's picture of the animal is inscribed *seraffa* (p. 76). In Purchas (*Pilgrims*) the form *ziraph* occurs. Yule thinks it is not impossible that *seraph*, in its Biblical use, may be radically connected with the giraffe, but this hypothesis is very improbable.

Vincent de Beauvais, author of the *Speculum naturale* (thirteenth century) refers to the giraffe in three different chapters of his work under three different names, without noticing that these names apply to the same animal. First, he describes it under the name *Anabulla* (evidently based on Pliny's Ethiopic word *nabun*) as having the neck of a horse, feet and legs of a bull, the head of a camel, and a skin pale red and white in color. Second, he mentions it as *camelopardus*, copying Solinus or Isidorus. Finally he describes it under the name *Orasius*, saying that in his time it had been transmitted to the emperor Frederick by the Sultan of the Babylonians. He remarks that the animal seems not to be ignorant of its own beauty, for when it sees people standing around, it turns completely so that it may be admired from every side, for nature has ornamented it with finer colors than all other beasts.

Albertus Magnus (1193-1280), in his work *De quadrupedibus* (XXII, 2, 1) mentions the giraffe twice, under the name *Anabula* and again under that of *Camelopardulus*, without recognizing the identity of the two. He gives *Seraph* as Arabic and Italian name, and writes that the skin, on account of its decoration, is sold at a high price; he also mentions the giraffe of Frederick II. Neither Vincent nor Albertus alludes to the horns.

The Latinized form *orafus* (hence older French *orafle*) is distilled from old Spanish *azorafa*, and the form *orasius* occurring in Vincent de Beauvais and Albertus Magnus is due to a misreading of *f* (*f*) for *s* (*s*), which letters were very similar in ancient manuscripts and printed books.



Fig. 19.

Camelopardus (Alleged Giraffe).

From the *Dialogus Creaturarum Moralisatus* (1486).

The climax of all these confusions was finally reached by the creation of a picture of the *Camelopardus* reconstructed entirely on the basis of mediaeval literary notices and bearing no resemblance whatever to a giraffe. The animal shown in Fig. 19 is reproduced from the *Dialogus creaturarum moralisatus*, a collection of moralizing animal fables published in Dutch (Gouda, 1480, 1481, 1483, and Antwerp, 1486) and translated into English under the title "*The Dialogues of the Creatures Moralized*" (London, 1813, with the animal pictures). Our illustration is based on a photograph taken from an original edition of the work in the University Library of Leiden. The text begins,

"Cameleopardus is an animal which has a hoof like a camel, a neck like a horse, feet and legs like a buffalo, and many spots as the animal pardus has on its body." Then follows a conversation of this fictitious creature with Christ, which is not of interest in this connection. A similar fantastic creature accompanies the early editions of Sir John Maundeville's *Travels* as an illustration of the giraffe (p. 75).

In contrast with this crude ignorance there are a few mediaeval travellers who had occasion to see giraffes and wrote of them somewhat sensibly. Cosmas, a Christian monk from Alexandria, called Indicopleustes ("the Indian Navigator"), in the course of his travels, visited Ethiopia



Fig. 20.

Camelopardalis of Cosmas Indicopleustes.

After J. W. McCrindle, *Christian Topography of Cosmas*.

about A.D. 525, and in book XI of his "Christian Topography" (written about A.D. 547) gives a brief description of the animals of the country. The giraffe is thus treated by him under the name *Camelopardalis*: "Camelopards are found only in Ethiopia. They also are wild creatures and undomesticated. In the palace [in the capital Axum] they have one or two that, by command of the king [Elesboas], have been caught when young and tamed to make a show for the king's amusement. When milk or water to drink is set before these creatures in a pan, as is done in the king's presence, they cannot, by reason of the great length of their legs and the height of their chest and neck, stoop

down to the earth and drink, unless by straddling with their fore legs. They must therefore, it is plain, in order to drink, stand with their fore legs wide apart. This animal also I have delineated from my personal knowledge of it." Like Herodotus of old, Cosmas was ever athirst after knowledge and possessed of some skill in drawing; he took much delight in covering his manuscript with sketches illustrative of what he had observed, especially types of people and animals. His giraffe, reproduced in Fig. 20, may be designated as a fairly correct outline of the animal.

A giraffe (*orafle*) of crystal as a gift of the Old Man of the Mountain to the king of France is mentioned by Jean Sire de Joinville (*Histoire de Saint Louis*, written between 1304 and 1309).

Marco Polo alludes to giraffes in three passages of his famous narrative,— for Madagascar, the island of Zanghibar (that is, the country of the Negroes), and for Abyssinia. Polo never visited Madagascar, and his hearsay account of the island contains many errors, among these the giraffe which never occurred in Madagascar and does not occur there. The interesting point, however, is that Polo is the first who recognized a wider geographical distribution of the giraffe and looked for it beyond the limits of Abyssinia to which all former travellers had confined it. With reference to Zanghibar he informs us,—

"They have also many giraffes. This is a beautiful creature, and I must give you a description of it. Its body is short and somewhat sloped to the rear, for its hind legs are short, while the fore legs and the neck are both very long, and thus its head stands about three paces from the ground. The head is small, and the animal is not at all mischievous. Its color is all red and white in round spots, and it is really a beautiful creature."

In the Latin and French versions the animal's name is spelled *graffa*; in Ramusio's Italian version, *giraffa*. Abyssinia is called by Polo Abash (Italian spelling: Abascia;

Latin: Abasia), based on Arabic Habash. He writes that giraffes are produced in the country.

The knight, Wilhelm von Bodensele, whose itinerary was written in 1336 at the request of the Cardinal Talleyrand de Perigord, saw a giraffe at Cairo, calling it *geraffan*.

The earliest notice of the giraffe in English literature occurs in the Travels of Sir John Maundeville of St. Albans (chap. 94), written about the year 1356:—

"In Araby is a kynde of beast that some men call Garsantes [giraffes], that is a fayre beast, and he is hyer than a great courser or a stead [steed], but his neck is nere XX cubytes long, and his crop and his taile lyke a hart and he may loke over a high house." The numerous manuscripts of Maundeville's Travels, owing to the great popularity of the book (scarcely two copies agree to any extent), show many divergences, and in some of them giraffes under the name *orafles* are ascribed to Chinese Tartary, with the addition, "There also ben many Bestes, that ben clept Orafles. In Arabye, thei ben clept Gerfauntz, that is a Best pomelée or spotted."

As is well known, Maundeville is a fictitious person, and the book going under his name was compiled by a physician of Liège from various sources.

The first printed illustration of a half-way realistic giraffe (Fig. 21) is found in the *Peregrinationes in Terram Sanctam* ("Peregrinations into the Holy Land") by Bernhard von Breydenbach, dean of Mayence. This work was first published in the same city in 1486, and represents the first illustrated account of a pilgrimage undertaken into the Holy Land in 1483-84, that contains views of places seen en route from Venice to Mount Sinai and drawn by Breydenbach's companion, the painter Erhard Reuwich. The animals sketched by him are the giraffe, inscribed *Seraffa*, crocodile, rhinoceros, capre de India ("Indian goat"), unicorn (a horse with narwhal's tusk), camel, salamander (gecko), and a great ape of unknown name (*Simia sylvanus*), accompanied by the statement that "these ani-

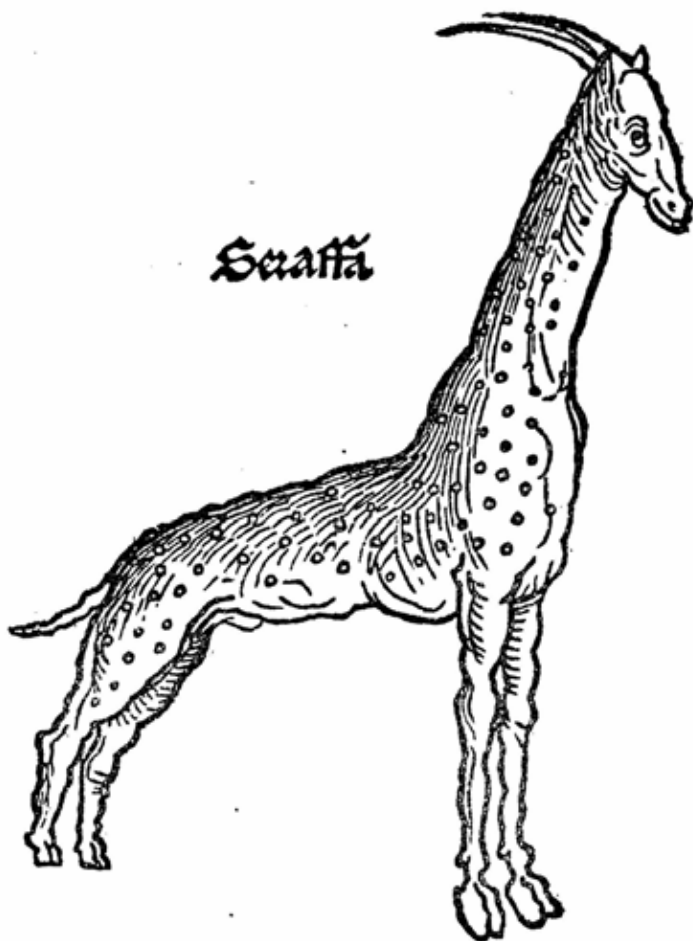


Fig. 21.

Giraffe (Seraffa) by Edward Reuwich.

From B. von Breydenbach's *Peregrinationes in Terram Sanctam* (1486).

mals are truly depicted, as actually seen by us in the Holy Land"(hec animalia sunt veraciter depicta sicut vidimus in terra sancta). Hugh Wm. Davies, in his Bibliography of Breydenbach (1911), remarks that "this can be believed in regard to the figures of the giraffe and dromedary, which are admirably drawn and probably the earliest printed." I cannot quite approve of this charitable attitude, for the horns of the animal are entirely wrong; in fact, they are not those of a giraffe, but of an antelope or oryx, very like those of *Oryx leucoryx*, the algazel. The tail is also misrepresented; the spots are indicated by small circles. I am inclined to presume that Reuwich drew the picture of the giraffe from memory and that in his effort to remember it visions of the oryx may have crossed his mind; at any rate, some mishap has occurred to him.

Breydenbach's work found a wide distribution: other editions with the woodcuts of the animals are in Flemish (Mainz, 1488), in French (Lyons, 1489), in Latin (Speier, 1490), in Spanish (Zaragoza, 1498), and some later editions, which go to show that in the latter part of the fifteenth century the giraffe was known on paper in most countries of Europe. Not all editions, however, contain the illustrations; thus the Newberry Library of Chicago has a Latin edition printed at Speier, 1486, and a French edition of Paris, 1522, which are minus the woodcuts.

The whole plate of Reuwich's animal pictures was taken over by Nicole le Huen and reproduced in his book "Des saintes pérégrinations de Jhérusalem et des avirons et des lieux prochains," published at Lyons, 1488. Joly and Lavocat have copied this plate and erroneously assigned the giraffe and other animals to the ingenuity of Nicole le Huen, as Breydenbach's work was not accessible to them.

A tolerably accurate sketch of a giraffe was therefore known in central Europe toward the end of the fifteenth century, but artistic representations of the animal we owe

to Italian painters of about the same time, as will be seen in the following chapter.

In his famous edition of Marco Polo's Travels Henry Yule comments that "the giraffe is sometimes wrought in the patterns of mediaeval Saracenic damasks and in Sicilian ones imitated from the former." An inquiry addressed to the Victoria and Albert Museum of London in regard to these designs elicited the following information from Mr. S. L. B. Ashton, in charge of the Department of Textiles: "I am afraid Yule is misleading on this question; the animals on these silks represent some form of deer and could not be taken for giraffes. I imagine that owing to the fact that they are usually represented in confronted pairs with their heads upturned, Yule mistook this length of neck to indicate that they were giraffes."

THE GIRAFFE IN THE AGE OF THE RENAISSANCE

The civilization of the Renaissance in Italy is characterized by the awakening of great interest in natural sciences, particularly in botany and zoology, and by a zeal for collecting curious plants and animals. During the fifteenth century, botanical gardens and animal parks (Italian *serraglio*) were founded in many places in Italy. The joy of exotic beasts led to the importation of live lions, leopards, elephants, camels, giraffes, ostriches, and even crocodiles from the ports of the southern and eastern Mediterranean. Arabs and Turks then were the active purveyors of menagerie animals, in the same manner as the Near East had played this role in the time of the ancient Romans.

One of the chroniclers of Florence relates that in the year 1459, when the Pope Pius II and Maria Sforza were received in that city, bulls, horses, boars, dogs, lions, and a giraffe were enclosed on a public square, but that the lions lay down and refused to attack the other animals. From letters of contemporaries we learn that they observed that lions kept in captivity abandoned their ferocity; and it once happened, as a letter-writer remarks, that a bull drove them back "like sheep into their fold."

Of the collections of exotic animals maintained by the princes of Italy, the most famous was the menagerie of Ferrante, duke of Naples, which contained a giraffe and a zebra,—two animals hitherto not seen in Europe. The duke had received them as a gift from the Caliph of Bagdad, toward the end of the fifteenth century.

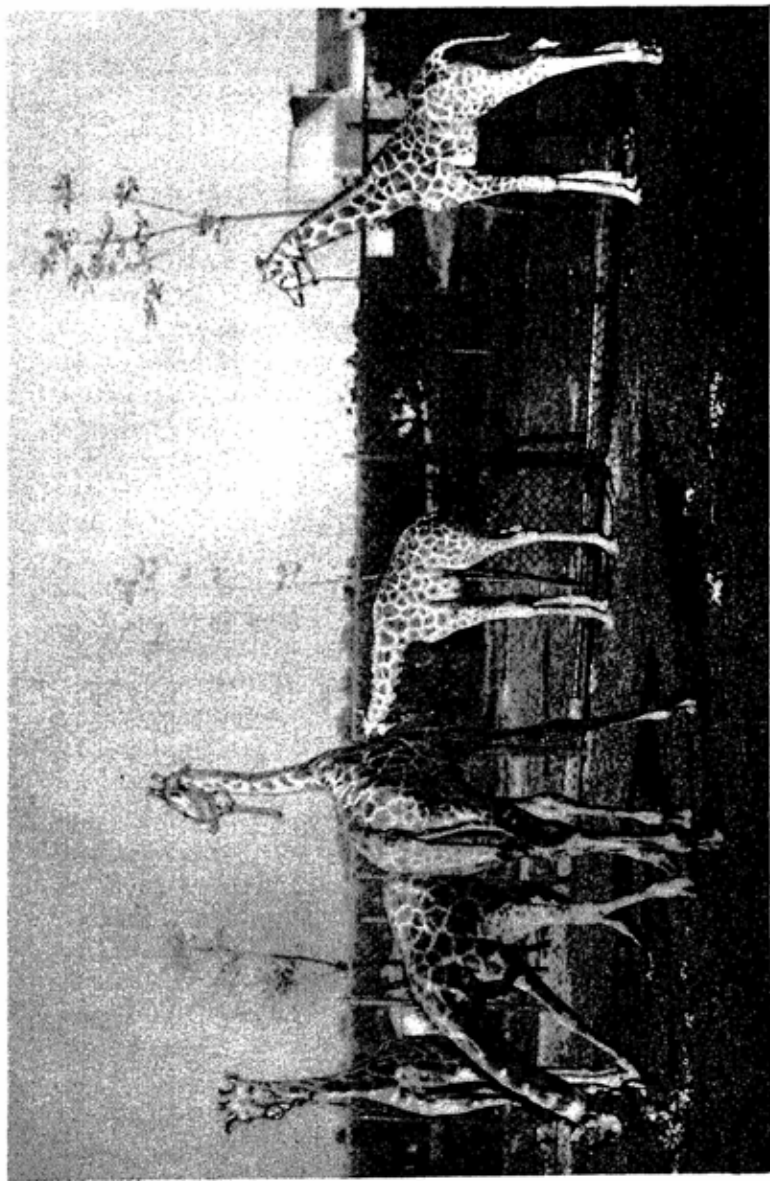
Under Lorenzo di Medici the luxury in exotic animals reached its climax at Florence. He had, first of all, leopards trained for hunting whose fame spread into France; moreover, tigers, lions, and bears which he caused to com-

bat with bulls, horses, boars, and greyhounds; elephants which, together with lions, appeared in a triumphal procession, and finally a giraffe presented in 1486 by El-Ashraf Kāit-Bey (1468-96), the Mamluk Sultan of Egypt. This animal was eulogized by the poets Angelo Poliziano and Antonio Costanzo, and was painted in one of the frescoes of the Poggio Cajano Palace in 1521.

Poliziano took matters rather easily, and in his poem confined himself to the remark that he had seen Lorenzo's giraffe; then he proceeds to translate literally the text of Heliodorus cited above (p. 61). Costanzo, however, shows that he really observed the animal, and his data betray the mind of an original thinker. He criticizes Strabo for questioning the animal's fleetness, and reproves Pliny, Solinus, Diodorus, Strabo, Varro, and Albertus Magnus for having suppressed the fact that it is provided with horns. In a Latin epigram addressed by him to Lorenzo the giraffe is introduced as speaking to the latter and lodging a complaint at having thus been deprived of its horns by the writers of the past. Lorenzo's giraffe was so gentle, he says, that it would eat bread, hay, or fruit out of a child's hand, and that when led through the streets, it would take whatever food of this kind was offered to it by spectators.

Lorenzo's giraffe met with a singular fate: it aroused the envy of Anne de Beaujeu, daughter of Louis XI, king of France, who died in 1483. Anne inherited from her father the love for animals, for she purchased a hundred and fifty-six siskins for the large aviary of the castle. She had dreams of owning some day a giraffe, which at that time was the object of curiosity at the Court of Florence and which she alleged Lorenzo di Medici had promised her.

Her letter addressed to him on the 14th of April, 1489, from Plessys du Parc is a document curious enough to be placed here on record. "You know," she wrote, "that formerly you advised me in writing that you would send me the giraffe (*la girafle*), and although I am sure that you



CAPTIVE YOUNG GIRAFFES IN HAGENBECK'S KRAAL AT THE FOOT OF THE KILIMANJARO, AFRICA.
Photograph by Courtesy of Carl Hagenbeck.



will keep your promise, I beg you, nevertheless, to deliver the animal to me and send it this way, so that you may understand the affection which I have for it; for this is the beast of the world that I have the greatest desire to see. And if there is any thing on this side I can do for you, I shall apply myself to it with all my heart. God be with you and guard you." Signed "Anne de France."

The Medicean, however, remained deaf to this prayer and kept his giraffe. It seems that breach of promise suits were not yet instituted at that time.

Giraffes were also kept at other Italian courts; for instance, by Alphonso II, duke of Calabria, in his villa Poggio Reale, and by Duke Hercules I in the Barco Park at Ferrara.

A giraffe is introduced into the background of Gentile Bellini's painting "Preaching of St. Mark at Alexandria," which is in the Brera Gallery of Milan (good photograph in the Ryerson Library of Art Institute, Chicago). G. Bellini (1426-1507) was court painter to the Sultan at Constantinople from 1479 to 1481, and brought back many sketches on his return to Italy, doubtless also the sketch of a giraffe. The painting in question was left unfinished at his death, and was completed by his brother Giovanni. It is an elaborate composition: a throng of monks and turbaned Orientals listening to the sermon of St. Mark on a huge square bordered by Moorish buildings and a cathedral in the background. At the foot of the stairway is planted a solitary and harmless two-horned giraffe, well outlined in its general features.

In 1487 the Sultan of Turkey presented to the Signoria of Florence a giraffe which caused a profound sensation. It was glorified in many painted portraits. Thus a giraffe figures in an "Adoration of the Magi" painted in the school of Pinturricchio (1454-1513) and now in the Pitti Palace of Rome.

Andrea Vannucchi, called Andrea del Sarto (1486-1531), has inserted a giraffe in the procession of the Three

Kings painted by him on a fresco of the Church of the Annunciation (Santissima Annunziata) at Florence (executed about 1510). He did so again in his Tribute to Caesar, dated 1521.

Leo Africanus, an Arabic traveller from Granada (beginning of the sixteenth century), writes, "Of the beast called Giraffa.—This beast is so savage and wilde, that it is a very rare matter to see any of them: for they hide themselves among the deserts and woodes, where no other beasts use to come; and so soone as one of them espieth a man, it flieth foorthwith, though not very swiftly. It is headed like a camell, eared like an oxe, and footed like a... [a word is wanting here in the original]: neither are any taken by hunters, but while they are very yong."

Pierre Gilles of Albi (or Latinized Gellius) was sent in 1544 to the Orient by command of king François I, in order to "search for and amass ancient books for the king's library." He stopped at Constantinople and Cairo, and in the latter city visited the menagerie of the castle, where the Pasha of Egypt resided. He tells us that he found there three giraffes which he describes thus (in his book *De vi et natura animalium* XVI, 9):—

"On their foreheads are two horns six inches long, and in the middle of their forehead rises a tubercle to the height of about two inches, which appears like a third horn (in fronte media tuberculum existebat, velut tertium cornu, altum circiter duos digitos). Its neck is seven feet long. This animal is sixteen feet high from the ground, when it holds up its head. It is twenty-two feet long from the tip of the nose to the end of the tail; its fore legs are nearly of an equal height, but the thighs before are so long in comparison to those behind, that its back inclines like the roof of a house. Its whole body is sprinkled with large spots, which are nearly of a square form and of the color of a deer. Its feet are cloven like those of an ox; its upper lip hangs over the under one; its tail is slender, with hair on it to the very point. It ruminates like an ox, and, like cattle, feeds

upon herbage and other things. Its mane is like that of a horse and extends from the top of the head to the back. When it walks, it seems to limp, first moving the right feet and then the left ones and simultaneously its sides. When it grazes or drinks, it is obliged to spread its fore legs very widely."

The interesting point is that Gilles is the first who mentions the third horn on the head of the Nubian giraffe.

André Thevet, who introduced tobacco into France (see "Introduction of Tobacco into Europe," Leaflet 19, p. 48), and who accompanied Gilles during part of his travels, likewise noticed the giraffes at Cairo, and gives a sketch of one in his book "Cosmographie de Levant" (Lyons, 1554), reproduced in Fig. 22. He writes, "I do not wish to pass over with silence two giraffes (*girafles*) which I saw there (at Cairo). Their necks are larger than that of a camel; they have on their heads two horns half a foot long, a small one on the front. The two fore legs are large and high, the hind legs are short, as may be seen in the accompanying figure represented as naturally as possible. This beast is the image of the learned and educated men, as Poliziano says; for these, at first sight, seem to be rough, rude, and peeved, although by virtue of the knowledge they have they are far more gracious, human, and affable than the others who have no knowledge whatever of sciences and virtue or who, as is commonly said, have greeted the Muses only at the threshold of the gate." In his "Cosmographie universelle" (Vol. I, fol. 388b, Paris, 1575), Thevet has given a more extensive notice of the giraffe with a very interesting drawing (reproduced in Plate V), but it teems with so many errors and absurdities that it is not worth placing on record. He locates, for instance, the giraffe in India and denies its occurrence in Ethiopia. The giraffe (Plate V) is guided by two Arabs and driven by a third man; another giraffe in the background freely browses under palms. The bodies of the animals are unfortunately misdrawn.

Pierre Belon (1518-64), a prominent French traveller and naturalist, reputed for the exactness of his observations, saw in Cairo the same giraffes as Gilles and Thevet, and has given a more accurate description of them, which is accompanied by the quaint picture of a giraffe drawn by himself from life (Fig. 23). He writes,—

“Formerly the grand lords, whatever barbarians they may have been, rejoiced in having beasts of foreign countries presented to them. In the castle of Cairo we saw



Fig. 22.

Giraffe with Guide.

From André Thevet's *Cosmographie de Levant* (1554).

several of those which had been brought there from all parts of the world, among these the animal commonly called Zurnapa, by the ancient Romans *Camelopardalis*. This is a very beautiful beast of the gentlest possible disposition, almost like a lamb, and more amiable or sociable than any other wild animal. Its head is almost similar to that of a stag, save that it is not so large, and bears small, obtuse horns six inches long and covered with hair. There

is a distinction between the male and the female inasmuch as the horns of the males are longer; for the rest, both sexes have large ears like a cow, a tongue like an ox and black, and lack teeth in the upper mandible. They have long,

Portrait de la Giraffe.



Fig. 23.

Giraffe.

From Pierre Belon's *Observations de Plusieurs Singularitez et Choses Memorables* (Anvers, 1555).

straight, and graceful necks and fine, round manes. Their legs are graceful, high in front, and so low behind that the animal seems to stand erect. Its feet are like those of an ox. Its tail hangs down over the hocks, being round and

with hair three times coarser than that of a horse. It is slender in the middle of the body. Its hair is white and red. In its gait it resembles the camel. In running, the two front feet go together. It sleeps with the paunch on the ground, and has a callosity on the chest and thighs like a camel. It cannot graze standing without straddling its fore legs, and even then feeds with great difficulty. Therefore it is easily credible that it lives in the fields solely on tree-leaves, its neck being so long that it can reach with its head to the height of a spear."

Aside from exaggerating the proportion of fore and hind legs and the erroneous definition of the gait, Belon's description is fairly exact.

A curious utilization of the hair of the giraffe is mentioned in the *Travels of Nicolo dei Conti* of the fifteenth century. Conti was a pioneer of European commerce in the East and travelled extensively in Egypt, Arabia, Persia, and India from 1419 to 1444. At his return to Italy he gave an account of his journey to Poggio Bracciolini, secretary of the Pope Eugenius IV. Bracciolini interpolated in his manuscript some information received from emissaries of the Pope to Ethiopia, and the notice of the giraffe emanates from this source. Curiously enough, the animal's name is not given. We read in *Conti's Travels*, "They informed me that there was also another animal, nine cubits long and six in height, with cloven hoofs like those of an ox, the body not more than a cubit in thickness, with hair very like to that of a leopard and a head resembling that of the camel, with a neck four cubits long and a hairy tail: the hairs are purchased at a high price, and worn by the women suspended from their arms, and ornamented with various sorts of gems."

It is a curious coincidence that a similar allusion to giraffe-tails occurs in the *Tractatus pulcherrimus* by an unknown author, written in the second half of the fifteenth century and published together with the famous letter of Prester John (see note on p. 97). The giraffe has hitherto

not been recognized in this passage, but comparison with Conti's account leaves no doubt of the giraffe being intended. In enumerating the animals of Ethiopia, among these elephant and rhinoceros, this text mentions "another animal in Ethiopia, as they relate, the largest; the hairs of its tail are sold at a great price, and are used by their women as a great ornament." In the same manner as in Conti's notice, the animal is not named, and it is certain that the passage must emanate from the same source,—the Pope's ambassadors to Ethiopia. We remember that giraffe-tails were offered as presents to King Tutenkhamon (above, p. 23), and it is interesting to observe how such old practices have been perpetuated through centuries down to modern times (above, p. 6). The Masai of East Africa still preserve the long hairs of giraffe-tails, and their girls use these hairs as threads to sew the beads on to their clothes. The natives of Kordofan still make bracelets of such hairs, which are traded over the Sudan.

In H. Goebel's "Wandteppiche" (Plate 226) is reproduced a carpet from the beginning of the sixteenth century, doubtfully referred to the manufacture of Oudenarde in Flanders. In this carpet are represented five giraffes equipped with headstalls and collar bands apparently decorated with jewels; one of the animals is provided with three horns. Their necks are straight and too long proportionately; anatomically incorrect and fantastic, they evidently were copied from drawings.

The Art Institute of Chicago owns an interesting print said to be Portuguese and to date from the eighteenth century. It is a gift of Mr. Robert Allerton. A section of it is reproduced in Plate VI. The design, a giraffe guided by an Arab and surrounded by floral patterns, is repeated many times. It is a continuation of the tradition inaugurated by Thevet and Topsell.

THE GIRAFFE IN THE NINETEENTH CENTURY AND AFTER

The first live giraffes received in France and England were gifts of Mohammed Ali, Pasha of Egypt, who also dispatched a live specimen to the Sultan at Constantinople and to the court of Vienna.

In 1826 he presented a giraffe to the king of France who had it placed in the Jardin des Plantes of Paris, which had been established in 1635. This was the first living giraffe who made its appearance in France. Its arrival was a great event and caused a sensation throughout the country. This giraffe was a female, about two years old, eleven feet and six inches in height, originating from Sennaar. She was about six months old when captured by Arabs, and was sold to Muker Bey, governor of Sennaar, who presented her to the Pasha. She was embarked at Alexandria, wearing around her neck a strip of parchment inscribed with several passages from the Koran and purported as an amulet to safeguard her health and welfare. She was accompanied by four Arabs to guide her and by three cows to supply her with milk. She landed at Marseille in November, 1826, sixteen months after leaving Sennaar, and arrived in Paris in June of the following year (1827). She was introduced to the king, Charles X, who then resided in the castle of Saint-Cloud, and was subsequently shown to an ever-increasing multitude of people. Every one was eager to see her, thousands waited in line for hours to catch a glimpse of the animal, the whole press busied itself about her. Articles and poems (*chansons*) were devoted to her, and she became so popular that she penetrated into the realm of fashion which seized her forms and colors, creating dresses à la girafe, hats and neckties à la girafe, and combs à la girafe. At Nevers she was modeled in faience, at Epinal she was glorified in colored pictures. She even entered the sanctum of politics, and a

bronze medal was cast, showing a giraffe who addresses these words to the country: "There is nothing that has changed in France, there is only another beast here." This giraffe gladdened the hearts of Parisians for nearly twenty years. It may now be seen stuffed in the Natural History Museum of the Jardin des Plantes. It is a curious coincidence that it is just a hundred years since this first live giraffe arrived in Paris, and an Associated Press dispatch from Paris of July 30, 1927, announces that this centenary will be duly celebrated. In 1843 a giraffe was presented by Clot Bey to the menagerie of the same museum in Paris.

In 1827 Mohammed Ali, Pasha of Egypt, presented a Nubian giraffe to George IV, king of England. This was the first giraffe received alive in Britain. Unfortunately, it survived but a few months at Windsor. The animal, in its surroundings at Windsor, was painted by James Laurent Agasse; this picture is preserved in the Royal Collection and reproduced by Lydekker (in *Proceedings of the Zoological Society of London*, 1904, Vol. II, p. 340). A portrait of Mr. Cross, the animal-dealer, together with two Arabs, is introduced into the scenery. Owing to the immature condition of the animal, the frontal horn was not fully developed; the animal, as shown in the painting, displays all the characteristics of the typical Nubian race of *Giraffa camelopardalis*, such as the net-like style of the markings, the white "stockings," and the comparatively large size of the spots on the upper part of the legs.

Another painting in the Royal Collection, representing a group of giraffes, is by R. B. Davis, a well-known painter, and is dated "September, 1827." It is described as "two giraffes belonging to George IV," and on the back it is titled "portrait of the Giraffe belonging to his Majesty." According to Lydekker, this species is intended for the Southern or Cape form, as the old bull has no frontal horn, while the markings are of the blotched, instead of the netted, type, and the lower parts of the legs are spotted,

although not quite so fully as they ought to be. Lydekker thinks that Davis might have taken Paterson's specimen of a Cape giraffe in the British Museum as his model; if this conclusion be correct, the painting is of very considerable interest, as that race now appears to be extinct.

Lieutenant W. Paterson (Narrative of Four Journeys into the Country of the Hottentots and Caffraria in 1777-79, p. 127, London, 1790), who was commissioned by Lady Strathmore to botanize in the then unknown region of Caffraria, offers an excellent copper-plate representing a "*Camelopardalis*" shot by him in South Africa and describes it as follows: "The color of these animals is in general reddish, or dark brown and white, and some of them are black and white; they are cloven footed; have four teats; their tail resembles that of a bullock; but the hair of the tail is much stronger, and in general black; they have eight fore teeth below, but none above; and six grinders, or double teeth, on each side above and below; the tongue is rather pointed and rough; they have no foot-lock hoofs; they are not swift; but can continue a long chase before they stop; which may be the reason that few of them are shot. The ground is so sharp that a horse is in general lame before he can get within shot of them, which was the case with our horses, otherwise I should have preserved two perfect specimens of a male and female. It is difficult to distinguish them at a distance, from the shortness of their body, which, together with the length of their neck, gives them the appearance of a decayed tree." Paterson sent home an immature male specimen of a Southern giraffe which he had shot and which was presented by Lady Strathmore to John Hunter, the distinguished surgeon. The animal's skull with some of the bones is still preserved in the Museum of the Royal College of Surgeons. The giraffe itself was finally acquired by the British Museum, where it was still extant in 1843, though in bad condition.

In 1836, four young giraffes from Kordofan, about two years old, were safely received at the London Zoological Gardens. The animals—three males and a female—flourished, and became the progenitors of a long line of English-bred giraffes, the first calf being born in June, 1839. It was followed by two others, the old female dying at the age of eighteen years. The animals continued to breed, and during the period between 1836 and the death of the last of the old stock in 1892, no less than thirty individuals were exhibited in the Regent's Park menagerie, seventeen of which had been born there. A pair of young animals, presented by Col. Mahon and likewise obtained from Kordofan, arrived in London in the summer of 1902.

The first living example of the Southern giraffe was imported into Europe in 1895 for the Zoological Garden of London at the price of £500. It had been captured on the Sabi River in Portuguese territory and brought down to Pretoria, whence it was conveyed to Delagoa Bay and shipped to Southampton.

In 1863 Lorenzo Casanova, an adventurous traveller and animal collector, returned from the Egyptian Sudan to Europe with a transport of six giraffes, the first African elephants, and many other rare mammals. In 1864 he entered with the firm Carl Hagenbeck into a contract according to which all animals to be secured on his future expeditions to Africa should be ceded to the latter. In 1870 the largest consignment of wild animals that ever reached Europe arrived at Trieste, consisting of fourteen giraffes, ninety other mammals, and twenty-six ostriches. The giraffes were distributed over the zoological gardens of Vienna, Dresden, Berlin, and Hamburg. About that time the itinerant menagerie-owners and showmen also began to keep giraffes; thus Carl Kaufmann, famous animal-trainer and disciple of Gottlieb Kreutzberg, who always endeavored to gather novel and interesting beasts, had a superb collection of trained lions, tigers, elephants, hippo-

potamus, rhinoceros, and giraffes. Renz, the celebrated circus-director, utilized giraffes, antelopes, buffalo, and many other creatures for the equipment of his pantomime "The Festival of the Queen of Abyssinia."

An inquiry addressed to the firm Carl Hagenbeck at Stellingen near Hamburg elicited the information that during the period 1873-1914 this firm imported a total of a hundred and fifty giraffes in four species,—*Giraffa camelopardalis* of Lower Nubia and Abyssinia, *G. capensis* of the Cape territory, *G. hagenbecki* from Gallaland, and *G. tippelskirchi* from former German East Africa. The largest specimen imported by Hagenbeck, about eleven and a half feet in height, came from the Galla country, and was transmitted to the Zoological Garden of Rome. Prior to 1914 Hagenbeck maintained at the foot of the Kilimanjaro in Africa a station for captive animals, where the captured young giraffes moved freely in a larger kraal, as shown in Plates VIII-IX made from photographs due to the courtesy of the firm Carl Hagenbeck. In its wonderful park at Stellingen the giraffes occupy a large stretch of land with a fine building of Arabic style. Like other animals, giraffes can be perfectly acclimatized almost everywhere, and do not suffer from the inclemencies of the European winter. Among the numerous interesting observations recorded by Carl Hagenbeck in his memoirs we read also that the hairs of the giraffes adapt themselves to the new conditions of life and that toward the end of the winter their hairs were found to be one and a half times longer than they usually are.

Only young animals of about eight feet in height are captured. They are hunted and lassoed by horsemen. This is comparatively easy, but the task of accustoming them to their new life, caring for them and rearing them, above all, their transportation presents difficult problems. On their way to the coast the animals must run. A strap is placed around the base of their neck, and they are governed by means of two halters, one in front and one

behind. On board ship or train they are stowed in large boxes which in size must correspond to the height of the animal with its neck outstretched. The average price for a young giraffe before the war was about \$1500-2000. At present when giraffes but very seldom are offered on the market, prices are arbitrary and fluctuating, and vary between \$5000 and \$7500.

The Zoological Society of Philadelphia keeps records of all the animals that have arrived there for the zoological garden which is the oldest in the United States. The earliest record there relating to the arrival of giraffes is an entry under August 11, 1874, when five males and one female were purchased.

The zoological garden in Lincoln Park, Chicago, received two giraffes, a male and a female, two years old, in October 1913, as a gift from Mrs. Mollie Netcher Newberger. The female died in December, 1915; the male, in May, 1919. Both were mounted, and are now on exhibition at the Boston Store. A giraffe in the Bronx Zoological Garden, New York, according to newspaper reports, is said to have given life to three young ones.

The London Zoological Garden now has only two giraffes—Maudie and Maggie. Maudie is a Nubian giraffe from the Sudan; and Maggie, a Kordofan giraffe, born in the menagerie, who has weathered twenty years of captivity.

In modern applied and commercial art the giraffe has not been entirely forgotten. It is familiar to our newspaper cartoonists. The advertisement of a well-known throat remedy is accompanied by a giraffe's head and neck. The British Uganda Railway displays a poster with a very effective colored picture of a giraffe. In the London Illustrated News of May 29, 1926 appeared a series of eleven comical sketches of giraffes from the hand of J. A. Shepherd under the title "Humours of the Zoo: Studies of Animal Life, No. XV." As to art-crafts, I have noticed metal

figures of giraffes as radiator caps on automobiles. Yet, a wider application might be made of this motif; for instance, in pen-racks and lamp-holders, an electric bulb being carried between the horns. Carl F. Gronemann, who has drawn the giraffe-heads for the cover and vignette of this leaflet, has thereby furnished excellent examples of how such animal designs may be employed in the graphic arts, for book-ornaments, bindings, or book-plates. Our sculptors and artists in oil have almost neglected this subject. While we have excellent photographs of both wild and tame giraffes, a really artistic painting or statuette of them remains to be done, and the inspiration coming from the works of the ancient Egyptians and Chinese may be helpful to the modern artist.

A very artistic picture of four giraffes browsing among acacias, by the American artist, Robert Winthrop Chanler, is now in the Musée du Luxembourg, Paris; it is reproduced in *The American Magazine of Art*, 1922, No. 12, p. 535.

NOTES

In regard to the role of the giraffe in Hottentot folk-lore (p. 29) compare the stories recorded by L. Schultze, *Aus Namaland und Kalahari* (Jena, 1907), pp. 405, 417, 489, 531. The Masai of East Africa have a good story of the Dorobo and the Giraffe (A. C. Hollis, *The Masai, Their Language and Folk-lore*, 1905, p. 235).

Page 35. Quatremère (*Histoire des Sultans Mamlouks de l'Egypte*, Vol. I, 1840, pp. 106-108) has extracted from Arabic manuscripts quite a number of records referring to presentations of giraffes. Only those which are of importance on account of their historical associations have been mentioned by me. In regard to al-Mahdi (p. 35), see T. K. Hitti, *Origins of the Islamic State*, Vol. I, p. 381 (Columbia University Press, 1916). The essential point is to recognize that the Muslim rulers of mediaeval Egypt were exceedingly active in sending giraffes as gifts into many parts of the world. The Abbassid Caliphs had an animal park at Baghdad which has been described by a Greek embassy in A.D. 917 (see G. Le Strange, *Journal Royal Asiatic Society*, 1897, p. 41).—The giraffe occurs also among Egyptian shadow-play figures of Cairo. One of these is illustrated by P. Kahle, *Der Islam*, Vol. II, p. 173 (possibly a giraffe in Fig. 34, Vol. I, p. 294).—In regard to the derivation of the Arabic word *zarāfa* from the Ethiopic and the relations of these words to Egyptian, compare F. Hommel, *Die Namen der Säugetiere bei den südsemitischen Völkern* (1879), p. 230.—Masudi is not the first Arabic author who wrote about the giraffe. There is an earlier lengthy account by Al-Jahiz (who died in A.D. 869) in his *Kitāb al-hayawān* ("Book of Animals"), Vol. VII, p. 76 of the edition published at Cairo, 1907; but the text is partially corrupt and very abstruse, and as its essential points are all contained in the authors cited above, I have not reproduced it.—The Persian story of the young giraffe (p. 39) meets with a curious parallel to what the Arabs say about the young rhinoceros: the period of gestation of the mother rhino is four years, the young one stretches its head out of the mother's womb and browses at the trees around; at the lapse of four years it leaves the womb and runs away with lightning speed, for fear that its mother might lick it with her tongue which is so rough that once it licks an animal, the latter's flesh will separate from the bones in a moment (compare G. Ferrand in *Journal asiatique*, 1925, Oct.-Dec., p. 267).

As Prof. Sprengling kindly informs me, one of the earliest Arabic references to the giraffe occurs in Bashshār Ibn Burd, the blind, deformed poet of the late Omayyad and early Abbassid period, who died in A.D. 783. In a satire on the early Mutagilite Wāsil Ibn Atā, named Abū Hudhaifa, nicknamed al-Ghazzāl, the weaver (because he frequented the weavers to observe the chastity of their women), when the latter made a derogatory exclamation about the poet's neck, he says:—

Why should I be bothered by a weaver, who, if he turns his back, has a neck

Like an ostrich of the desert; and if he faces you,

The neck of the giraffe? What have I to do with you?

Some Arabic philologists regard *zarafa* as a purely Arabic word and derive it from the Arabic root *zrf*, which means "assembly." Hence Sibawaih, the great grammarian of the Arabs, who died in A. D. 793 or 796, writes, "God created the giraffe with its fore legs longer than its hind legs. It is named with the name of the assembly, because it is in the form of an assembly of animals. Ibn Doraid writes it *zurafa* and doubts that it is an Arabic word." Ibn Doraid, of course, is justified in his doubt; he was a celebrated philologist of Basra and lived from A. D. 837 to 934.

The giraffe in Chinese records (p. 42) was first pointed out by H. Kopsch (*China Review*, Vol. VI, 1878, p. 277), who translated the description of a Kilin with reference to Aden from a Chinese biography of Mohammed. This text, however, has no independent value, but is literally copied from Ma Huan's account. This brief notice induced De Groot to contribute to the same journal (Vol. VII, p. 72) an article on "The Giraffe and The Kilin," in which he tries to show that the Kilin of ancient Chinese tradition may be identical with the giraffe. This, of course, is a reversion of logic. It is impossible to assume that the ancient Chinese were acquainted with the giraffe, which in the present geological period did not anywhere occur in Asia; nor do the ancient descriptions of the Kilin, as assumed by De Groot, fit the giraffe. The climax of sinological romance is reached by A. Forke (*Mu Wang und die Königin von Saba*, p. 141), according to whom the Chinese were acquainted with the giraffe in the earlier Chou period through the travels of King Mu to the west. The giraffe, on the other hand, was not recognized by Bretschneider (*China Review*, Vol. V, 1876, p. 172) in the Kilin of Arabia purchased by a Chinese envoy in 1430. O. Münsterberg (*Chinesische Kunstgeschichte*, Vol. II, p. 65) sees a "wounded giraffe" on a Han bas-relief of Teng-fung, Ho-nan. The animal in question is simply a deer. The alleged "giraffe-like Kilin" on a bronze basin of the Han period (cf. A. C. Moule in the article cited in the Bibliography) is the so-called spotted deer (*Cervus mandarinus*), called by the Chinese *mei hua lu* ("plum-blossom stag"). Its spots are represented either by small circles or even by plum-blossoms of realistic style.

The reader interested in the relations of the Chinese with the east coast of Africa may consult F. Hirth, Early Chinese Notices of East African Territories, *Journal American Oriental Society*, Vol. XXX, 1909, pp. 46-57.

The animal *a-t'a-pi* (p. 43) is referred to by W. W. Rockhill (*T'oung Pao*, 1914, p. 441) with the remark, "I have no means of determining what animal is meant." *Damaliscus jimila*, according to Roosevelt, extends from Mount Elgon and the northern highlands of Uganda southward over the Man Escarpment and Victoria Nyanza drainage

to what formerly was central German East Africa; westward as far as the Edward Nyanza and Lake Kivu; also near the coast from the Sakaki and Tana Rivers northward as far as the Juba River. The topi is one of the most conspicuously colored of all antelopes, being inversely countershaded. The body coloration is a bright cinnamon-rufous overlaid everywhere by a silvery sheen which gives the coat a resplendent effect. The red color is deepest on the head, throat, and sides and lightest on the rump, hind quarters, and tail, where it fades to pure cinnamon. The shoulders are marked by a broad black patch which extends down on the fore legs as far as the knees and completely circles the upper part of the leg. The hind quarters are marked by a much larger black patch which extends down on the limbs as far as the hocks above which it forms a complete band around the leg.

Ma Huan's account of Aden containing the description of the giraffe (p. 45) was first translated by G. Phillips in *Journal Royal Asiatic Society*, 1896, pp. 348-351, and subsequently by A. C. Moule in the article cited in the Bibliography.

In regard to the opossum (p. 54) cf. C. R. Eastman, *Early Figures of the Opossum*, *Nature*, Vol. 95, 1915, p. 89.

Page 58. The learned S. Bochart, in his famous *Hierozoicon* (Vol. I, col. 908, 1675) rejected the opinion that Aristotle was acquainted with the giraffe, but subsequently Pallas, Allamand, G. Schneider in his translation of Aristotle's *History of Animals*, as well as Joly and Lavoocat, have championed the opposite view, which, however, is untenable. O. Keller (*Die antike Tierwelt*) offers little on the giraffe; he does not place the accounts of the ancients on record, nor does he discuss them. H. Rommel (*Die naturwissenschaftlich-paradoxographischen Exkurse bei Philostratos, Heliodoros und Tatios*, 1923, p. 61) gives a brief critical evaluation of the texts.

An interesting essay on the former statues in Constantinople (p. 66) was written by R. M. Dawkins, *Ancient Statues in Mediaeval Constantinople*, *Folk-lore*, Vol. XXXV, 1924, pp. 209-248.

The text of Jean de Joinville (p. 74) is as follows: "Entre les autres joiaus que il envoia au roy, li envoia un oliphant de cristal mount bien fait, et une beste que l'on appelle orafie, de cristal aussi, pommes de diverses manières de cristal, et jeuz de tables et de eschiez; et toutes ces choses estoient fleuretées de ambre, et estoit li ambres liez sur le cristal à beles vignetes de bon or fin."—Natalis de Wailly, *Histoire de Saint Louis* par Jean Sire de Joinville (1878), p. 163.

The complete title of this curious little work (p. 86) is *Tractatus pulcherrimus de situ et dispositione regionum et insularum tocius Indiae, nec non de rerum mirabilium ac gentium diversitate*. A critical editon of the text is given by F. Zarncke (*Der Priester Johannes* II, pp. 174-179).

B. LAUFER.

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Illustration of the giraffe of Pamfili (incomplete) after O. Keller and an Egyptian design from Thebes after Ehrenberg.

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Two Egyptian figures, one after Wilkinson, another from Hierakonpolis after Quibell.

Chinese and Persian Giraffe Paintings. *Nature*, Vol. 99, 1917, p. 344.

Chinese painting of A. W. Bahr representing giraffe and accompanied by erroneous conclusions (see above, p. 49).

Giraffe and Sea Horse in Ancient Art. *American Museum Journal*, Vol. XVII, 1917, p. 489.

Same matter as preceding article.

FERRAND, G.—Le nom de la giraffe dans le Ying yai cheng lan. *Journal Asiatique*, July-August, 1918, pp. 155-158.

In this very interesting article G. Ferrand makes the point that the Chinese name *k'i-lin* for the giraffe is based on Somali *giri* or *geri*. This ingenious supposition is not entirely convincing for several reasons. First, a direct contact of the Chinese with the Somali is unproved. Second, the old Chinese pronunciation *gi-lin* holds good only for the T'ang period, not for the fifteenth century when the Chinese actually made the acquaintance of the giraffe and when the word was articulated *k'i-lin* as at present. Third, the name *k'i-lin* was applied to the animal in China when it arrived there as early as 1414, the Chinese naturally believing that it virtually was the *k'i-lin* of their ancient lore. Ferrand insists that Ma Huan heard the Somali word *giri* at Aden, but Ma Huan himself did not visit Aden; his account of Aden is based on the report of the eunuch Li who was at Aden in 1422, but at least eight years earlier the giraffe was designated *k'i-lin* on Chinese soil. For these reasons the Somali hypothesis appears to me unnecessary. The question is merely of an adaptation of an old name to a novel animal, not of

an attempt at transcribing a foreign word. The Somali name was not transmitted anywhere; it was the Arabic name *zurafa* which was conveyed both to China and to Europe.

GRABHAM, G. W.—An Original Representation of the Giraffe. *Nature* Vol. 96, 1915, pp. 59-60.

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MAXWELL, W.—*Stalking Big Game with a Camera in Equatorial Africa*. New York, 1924. Chap. VI: Camera Incidents with the Masai Giraffe.

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This is the first description of the giraffe in France based on a live specimen and enriched by information given by the Arab guides of the animal.

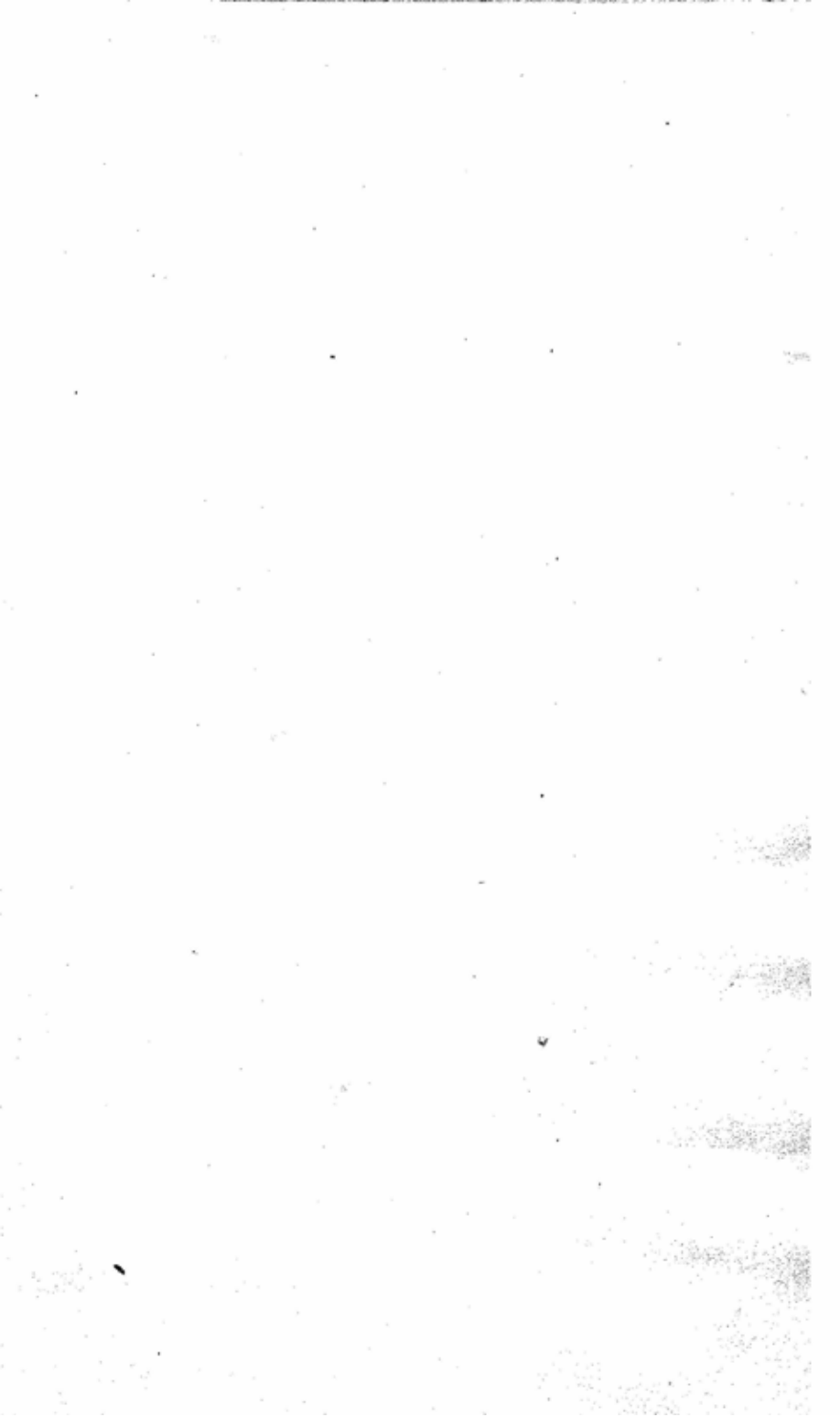
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The quotations given are mere extracts and not complete; the translations from Greek authors are very inexact.

(292) *End*

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